

# THE ARMY DOCTRINE & TRAINING BULLETIN

Canada's Professional Journal on Army Issues

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## MANOEUVRE WARFARE AND LEADING FROM THE FRONT

*Colonel Walter Semianiw, CD*

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## BURN THE WITCH: A CASE FOR SPECIAL OPERATIONS FORCES

*Lieutenant-Colonel Bernd Horn, CD*

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## DEEP OPERATIONS: THE KEY TO SUCCESS

*Captain Mike Johnstone, CD*

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## COMBINED ARMS OBSTACLE INTEGRATION

*Major Ken McKay, CD*

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## DOCTRINE AND CANADA'S ARMY—SEDUCTION BY FOREIGN DOGMA: COMING TO TERMS WITH WHO WE ARE

*Lieutenant-Colonel Roman J. Jarymowycz, CD*

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## GENERAL SIR ARTHUR WILLIAM CURRIE: A COMMON GENIUS FOR WAR

*Captain Roger R. Barrett*

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# THE ARMY DOCTRINE AND TRAINING BULLETIN

## CANADA'S PROFESSIONAL JOURNAL ON ARMY ISSUES

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The Army Doctrine and Training Bulletin is the army house journal dedicated to the dissemination and discussion of doctrinal and training concepts and ideas by all members of the army and those members of the civilian community with an interest in doctrinal and training matters. Articles on related subjects such as leadership, ethics, technology or military history may also be submitted. Considered, reasoned debate is central to the intellectual health of the Army and the production of valid doctrine and training policies. Articles promoting thought and discussion are therefore welcome. All ranks are encouraged to contribute.

### ARTICLE SUBMISSION

Articles of any length will be considered for publication, the ideal length being 2-4000 words. Articles can be submitted in either official language. Usage and spelling are in accordance with: *The Canadian Style: A Guide to Writing and Editing* (Public Works and Government Services Canada, 1997), *Le guide du redacteur*, Translation Bureau (PWGSC, 1996), both are available via [www.pwgsc.gc.ca/termium](http://www.pwgsc.gc.ca/termium), libraries or bookstores; and *The Concise Oxford Dictionary of Current English* or the *Petit Robert*. Supporting tables, charts and photographs must be provided by the author. Endnotes or a bibliography are required. Contributors should include a brief biography citing their academic background, military employment, notable courses and current position. Articles can be submitted via e-mail or regular mail (a disc copy must be included). Articles will be reviewed by an Editorial Board consisting of the Commander 1<sup>st</sup> Canadian Division, the Commandant Canadian Land Force Command and Staff College, the Director of Army Doctrine, the Director of Army Training, the Director of Land Strategic Concepts, the Directorate of Army Training Chief Warrant Officer, and the Managing Editor. Contributors will be notified by the Managing Editor on the status of their submission.

### DEADLINES

The deadline dates for submissions for each issue are as follows:

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May Issue: By 15 December  
August Issue: By 31 March  
November Issue: By 30 June

### OTHER CONTRIBUTIONS

Contributions to the Stand-Up Table should be no longer than 1000 words. Contributions to this section may be made anytime and will be published in the earliest issue possible. Comments on articles should be submitted as soon as possible following the publication of that article.

### DISTRIBUTION

The Bulletin is distributed to all army headquarters, schools and units, and to selected NDHQ, Maritime Command, Air Command, CFRETS and DISO addresses. Copies are also provided to defence related organizations, allied armies and selected members of the public and academia. Individuals requiring copies are asked to inquire with the Managing Editor.

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## MAJOR-GENERAL GEORGE KITCHING, CBE, DSO, CD

Major General George Kitching, one of the last surviving Canadian divisional commanders from the Second World War, passed away at his home in Saanich, British Columbia on 15 June 1999. Only days earlier, he had been a guest of Prince Bernhard of The Netherlands, when he fell ill. General Kitching's served with the Canadian army for 26 years—his wartime service included operations in Sicily, Italy (twice), Normandy, and The Netherlands, where he was instrumental in securing the surrender of German forces; his post war service included many key appointments. Born on 19 September 1910, in Canton, China, Major General Kitching received his initial military training at the Royal Military College Sandhurst in the United Kingdom. He was commissioned into The Gloucestershire Regiment, and served in Singapore, Malaya and India before resigning his commission and moving to Canada in 1938, with the hope of joining the Canadian army. In 1939, Kitching joined The Royal Canadian Regiment and went overseas with the first contingent in 1939. He served in various line positions before attending Camberley Staff College in 1940. From January to October 1941, Kitching held several staff appointments with Headquarters 1st Canadian Division and Headquarters 1st Canadian Corps. On 1 August 1942, Kitching was promoted to lieutenant-colonel and appointed Officer Commanding The Edmonton Regiment until 13 December 1942. Returning to Headquarters 1st Canadian Division, Kitching served as the General Staff Officer 1st Grade (roughly equivalent to a modern G3) for the invasions of Sicily and Italy. In October 1943, he was promoted to

Brigadier (bypassing the rank of colonel, which was normal for the time) and given command of the 11th Infantry Brigade, 5th Canadian Armoured Division. In March 1944, he became major-general, transferred to England and appointed General Officer Commanding 4th Armoured Division,



**An official Portrait of Major-General George Kitching, the General Officer Commanding 4th Canadian Armoured Division, taken in April 1944. (From the J.R. Grodzinski Canadian Army Collection)**

which he led during the Battle of Normandy. At the end of his command in August 1944, Kitching was briefly given command of the 13th Canadian Infantry Brigade, a training formation in the United Kingdom. He reverted to the rank of Brigadier and was posted as Brigadier, General Staff (chief of staff) 1st Canadian Corps in November 1944, which he held until July 1945. Kitching played a key roll in all corps operations from this period on, including the surrender of German forces in Holland under Colonel-General Johannes Blaskowitz. After a tour as Vice

Quartermaster General from 1945 until 1947, he became Brigadier General Staff (Plans) at Army Headquarters, followed by Director General of Army Personnel. General Kitching went on to serve as Commandant of the Canadian Army Staff College (1951–1954), Chief of Staff Western Command and Commander 2nd Infantry Brigade in Edmonton (1954–1955), and Commander of British Columbia Area (part of Western Command; 1955–1956), after which he was promoted to major-general. From September 1956 to March 1958, he was Vice Chief of the General Staff, followed by Chairman, Canadian Joint Staff in London. He then became General Officer Commanding Central Command (the geographical area of Ontario) at Oakville from 1962 until 1965, when he retired. Kitching published a memoir<sup>1</sup> and was a Patron of Lester B. Pearson College of the Pacific, where he established an endowment fund.<sup>2</sup> General Kitching's exceptional military career encompassed both the British and Canadian armies. He was a participant and eyewitness of some of the most significant events of this century, and as such will remain a key figure in the history of the Canadian army.



### ENDNOTES

<sup>1</sup> *Mud and Green Fields: The Memoirs of Major-General George Kitching*: St Catharines: Vanwell Publishing, 1993.

<sup>2</sup> Donations can be sent to: General George Kitching Scholarship Endowment Fund Lester B. Pearson College of the Pacific, RR 1, Victoria, BC, V9B 5T7

## GUEST EDITORIAL

### LIFE BEYOND Y2K—TECHNOLOGY AND THE ARMY

Colonel J.I. Holsworth, CD  
Director, Land Force Technical Staff Programme

Without doubt, the Army has undergone monumental changes in the past few years, perhaps some of the most profound in our history. Seldom, if ever, have we concurrently restructured our field force, garrison support, and reserve force, experienced such close public scrutiny, or been committed to so many operations at home and abroad. All this with a force that has been reengineered and reduced to a shadow of its former self, along with troops who have been surveyed, scrutinized, and “sharpened.” But what now? As we deal with the current chapter in the Balkans and look beyond Y2K, can we turn the corner towards a new Army for the new millennium?

Certainly, the foundation is (and always has been) our people, with their desire to serve and their will to provide Canada with a professional and proud military. It may be true that the Army is having difficult times, but it is also true that we have never been in such high demand, helping Canadians at home, serving faithfully—beyond our normal capacity—with the United Nations, and answering the recent call to arms with NATO. In fact, the devotion and resilience of the Canadian soldier through all these demands continues to be incredible. Along with death and taxes, operational and technological change is inevitable. We face a future in which our soldiers and leaders must be prepared to deal with this change and the related challenges.

#### REVOLUTION IN MILITARY AFFAIRS?

We are currently witnessing the introduction of some very sophisticated, technologically advanced tools of our trade: new recce vehicles, personnel carriers, radios, command and control systems, mine detection equipment, and electronic warfare, to name but a few. This in itself may not constitute a revolution in military affairs, but

*We need leaders to command effectively and succeed in operations, by understanding the technology used by their soldiers, and leveraging every possible tactical advantage in order to save lives and accomplish the mission.*

what does? The Revolution in Military Affairs (RMA) is certainly not limited to technology and the information age; it is as much a matter of our national culture and perceived role in the world. Consider our significant investment in understanding the changing security environment and the very nature of future conflict. If we are, indeed, fundamentally revamping our doctrine and exploring new capabilities and techniques for the Army of the future, then we are likely in the midst of some form of revolution. At least, we are seeing the Canadian army's version of RMA

(the real RMA was contracted out through Alternate Service Delivery). The end of the Cold War and Somalia may have triggered this process. Nevertheless, we are living through a national re-assessment of the very need for Canada's military, and a search for our true *raison d'être*. Equally, however, it is a period where Canadians are starting to appreciate the value of our soldiers, which is an important step in re-earning their confidence and commitment. Yet, we cannot lose sight of the fact that we are also living through the information age and an unprecedented proliferation of technological innovation, whether we like it or not.

#### IMPACT OF TECHNOLOGY

So, where is technology in all this? (Perhaps, the better question is how do you get 50 tons of tank into a Light Armoured Vehicle (LAV) with the same protection, firepower and mobility?) As we speak, there are incredible innovations in all areas of technology that will impact on every one of our combat functions. Hypervelocity rounds, electro-thermo-chemical guns, and directed energy weapons could well redefine firepower beyond the current limit of combat platforms, as will precision guided and multiple target munitions. Combat platforms with active armour, advanced and smart materials, and sophisticated defensive aid suites will be lighter, more mobile, and versatile, yet carry better protection and survive longer. The study of

optronics, data fusion, and robotics will continue to refine imagery resolution, information gathering, and sensor platforms, including unmanned vehicles. Our soldiers will carry precise location, situational awareness and have improved performance through artificial intelligence, miniaturization, and biotechnology. Is this all possible?

The fact is that many of these technologies are mature and affordable now. As well, Canada is home to a wealth of intellectual and research and development (R&D) capability. Often, the only missing ingredient is the interpretation of the military application, and, in some cases, the appreciation of the need and the desire to pursue these capabilities. Regardless of how we proceed in building the Army of tomorrow, technology will lead the way, heavily influencing our doctrine, organization, alliances, and the way we fight. Do we follow the flow of change and capitalize on emerging technologies, or actively guide our national R&D effort and link the technology investment to our specific military applications, or a combination of both? Probably the latter. One thing is certain: if we hope to keep pace or even remain interoperable with our allies (who ever they may be in the future), we must use technology to our best advantage.

## BEYOND Y2K

What does the future bring? Some things we know, and others will need a close gaze into the crystal ball...if we have the courage to look. No doubt, we will continue to have small defence budgets, a small force (regular and reserve), and a continued high operational tempo, as Canada attempts to maintain its international obligations. Another certainty is that we live in an information age, where

engagements take place in headquarters and across airwaves long before the first physical round is fired. With technology advancing in leaps and tactical bounds, the battlefield itself will certainly be more dispersed and lethal (at close and long range), require more agility and stealth, and demand faster and better informed decisions. What can never be guaranteed is where, when, and under what circumstance deployments will take place. The very nature of these commitments, and the coalitions formed to meet them, will become more vague, as will the conditions under which we can declare success. The threats and the very nature of our involvement are changing almost daily, as we scramble to rewrite new definitions for operations, war or otherwise.

Perhaps, the notion of maintaining a general-purpose combat capability simply does not fit any future scenario. Must we now look to specialized areas of expertise that Canada can focus on, build, and contribute? No, this does not necessarily mean the end of mechanized operations, the tank, and artillery, but it does mean redefining the roles and capabilities of our arms and services within the combat functions. We will need versatile capabilities applicable to any battlefield within the potential spectrum of conflict, and within the spirit of manoeuvre warfare and mission command. Regardless of the force development approach we take (either general-purpose or more specialized), technology will be at the heart of, or even define, any future combat capability. How, then, do we shape these requirements and produce future commanders without fully understanding technology and its influence? The key is flexibility in

our force mix and combat power, and (most importantly) knowledge and flexibility in the minds of our leaders.

## OUR FUTURE LEADERS

So, how do we cope as military leaders, those who must conduct current operations and chart out the way to the future? One of the key ingredients is education, both a broad education of the world we live in and a strong understanding of the forces and trends that are shaping us. We need to reinvest in the intellectual and technical development of all of our leaders. This is not at the expense of proven leadership skills coupled with mental and physical toughness (which have always been the hallmark of Canadian soldiers), but rather to arm our leaders with the tools they require to do their jobs and deal with the changing world and military. We need to be full participants in the national dialogue on the type of military Canada will have in the future. We need to provide professional military advice and opinions, which is indeed our duty. We must articulate clearly the requirements of our business (in operational and technical terms), and play a key role in the development and deployment of those capabilities from drawing board to assembly area. These efforts will take officers, senior non-commissioned officers, and soldiers with strong technical grounding, the right skill sets, and a full understanding of the military context and application.

The leaders we need to bring us into the twenty-first century must be able to shape the Army of the future through a clear understanding of how this revolution in military affairs will impact on our doctrine, organization, and operational readiness. The best

qualities of our officers will be tested in putting projects in motion, negotiating national procurement, guiding research, building partnerships with industry, and ultimately fielding the capabilities we need for modern warfare. More often than not, it is the operational requirement married with the technical art of the possible that forms the critical link in fielding valuable capabilities. Finally, we need leaders to command effectively and succeed in operations, by understanding the technology used by their soldiers, and leveraging every possible tactical advantage in order to save lives and accomplish the mission.

#### THE INVESTMENT

All this does not just mean adding more training. What it does mean is finding the right balance between the education and training of our leaders, and a clear understanding of the knowledge and skills needed at different stages in one's development. There must also be a balance in operational experience, opportunity to use and develop practical leadership skills, and keeping focussed on the needs and welfare of our soldiers. The current review of our officer specifications and the building of an army-wide leadership model are vital in defining the right level of education and training (tactical, technical, and procedural). We must synthesize the art and science of war fighting.

Perhaps, the solution is a rationalization of our current staff training into a comprehensive package, with an option for further investment for those specializing in a specific area of technology and procurement, and those destined to command. This will enable all officers

to have the right basic mix of operational and technical knowledge, yet allow individual strengths and talent to determine who is best for the variety of challenging posts. Many of our allies use a similar building block approach to their staff and NCM training. An important element is the linking of military training to continuous education through academic accreditation. In other words, give credit where credit is due, and use the academic measure as the yardstick as people progress through their careers. Why not have a sergeant or WO with a degree, and hopefully paid accordingly? Why not have an officer's staff training contribute towards a broader and progressive education in military affairs?

The pay off would be considerable. We have often allowed replacement technology to arrive in the unit, with little understanding of its capability, limitations, and doctrinal and training implications. Does LAV Recce or Tactical Command, Control and Communications System (TCCCS) sound familiar? We simply can no longer afford to evolve that way for operational, professional and financial reasons. Equally important is the confidence individuals will gain in a military that is indeed investing in their future, knowing that they have an important role to play. The skills and values we demand in the military are special; they take a long time to evolve. Change can be good, but stability is better when one is talking about soldiers and their ability to go to war. Canada has always prided itself in producing versatile and extremely capable military professionals. We cannot let this professionalism deteriorate for want of future vision and investment.

#### CONCLUSION

This is not a question of technology just for the sake of technology. The army has always followed the view that we equip the soldier, rather than merely man the equipment. There is no doubt that individual soldiers remain the key to combat, through their will to fight, leadership, spirit, morale, and courage to close with and destroy the enemy. However, for too long we have always steered away from technology or, at least, misunderstood how it could save lives and aid soldiers in their mission. We must prepare for change, and harness the advantages technology brings through a greater awareness and better education.

The key is to conceive, design, build, manage, and fight the army as a combat system, built around well-defined capabilities, with the associated support and training costs fully understood. The driving factor may be the uncertainty of the changing security environment and our expected role, but some of the solutions in meeting this challenge may be found in technology. It is our ability to embrace that technology, and prepare our leaders and soldiers to fight with it, that counts.



## FROM THE MANAGING EDITOR

### TOPICS FOR PAPERS AND OPINIONS # I

*Captain John Grodzinski, CD*

Many of the papers published in *The Army Doctrine and Training Bulletin* have been well received by our readers and, in most cases, have provided valuable assistance to certain Land Force Command Headquarters directorates and other army organizations in their work. Often, a detached opinion, uncluttered by the day to day minutiae of a project, provides the solution. Occasionally, *The Bulletin* receives topic suggestions from those organizations and individuals that need opinions on certain subjects.

A selection of some of the topics received to date is given below. Readers may want to examine these topics in detail in an article or provide an opinion in a Stand Up Table commentary. Whatever the case, it is hoped that these will stimulate discussion.

- ✦ Should all Intelligence, Surveillance, Target Acquisition, and Reconnaissance (ISTAR) assets (such as the brigade reconnaissance squadron, electronic warfare squadron, and sensors) be grouped into a brigade group "ISTAR" unit that is responsible for the training and employment of those assets? Do the products of Information Operations need to be "empowered?"
- ✦ Is the brigade reconnaissance squadron a manoeuvre or ISTAR asset?
- ✦ Since 1994 the Canadian army has been a doctrine based army. Did you know this? How relevant is doctrine, and how should it be produced, promulgated, and disseminated?
- ✦ What is the feasibility of broadening militia field training to allow company and battalion commanders to exercise in scenarios similar to regular force field training? Arguably, militia units or sub-units will never deploy on operations, but would such training give greater credibility to the militia?
- ✦ If the militia is to provide individual augmentation to the regular force for operational deployment only, should militia units conduct combined arms training?
- ✦ To what level should the Canadian army be committed to conducting unique operations? Potential authors should examine *Conduct of Land Operations—Operational Level Doctrine for the Canadian Army (B-GL-300-001/FP-001)* and *Land Force Tactical Doctrine (B-GL-300-002/FP-000)* before writing.
- ✦ Given the mounted and dismounted firepower that the LAV III infantry battalion will have, are intimate support tanks still needed, or should armour be employed elsewhere during attacks?
- ✦ Is the Operational Planning Process the correct tool for planning operations? What should be changed? Is there a better alternative?
- ✦ Should manoeuvre units be organized along combined arms lines as opposed to the current functional organization? For example, should regiments be permanently allocated armour, engineer, infantry, and other assets, or remain organized as they are now? Potential writers should note the distinction between unit organization and the regimental system.
- ✦ Has the reduction of field command positions for general officers placed them too far from operations? Currently, the only army general officers with operational roles are the commander Headquarters 1st Canadian Division/Joint Force Headquarters and an exchange position as Deputy Assistant Commanding General III US Corps at Fort Hood, Texas.
- ✦ Given the increased employment of technology in the Army, should personnel receive more technical training? For example, if the electro-magnetic spectrum is to be exploited, should training for leaders and operators not include greater theoretical understanding on the employment of these systems?



- ✦ Prior to unification, attendance at the Canadian Land Force Command and Staff College was determined by performance on a series of written examinations. Now, both the selection process and grading system on the course make it largely an “attend” course. Should more thorough examinations be established and more rigorous standards be used at the staff college?
- ✦ The revolution in information technology eliminated entire levels of management within the business community, and blurred the demarcation of responsibilities between certain managers and workers. During Force XXI exercises, the US Army discovered that junior officers became operators rather than leaders, and certain non-commissioned ranks gained increased authority simply by the information they were “managing.” The duties of certain rank levels also became redundant. All this is leading to a re-examination of the duties and responsibilities of various ranks. Will the influx of information technology systems into the Canadian field force lead to the same situation, and what will have to be done to correct it? Simply put, will it be necessary to change our current rank structure?
- ✦ All officers require university education. Do we seriously believe that a post-secondary education gives officers better reasoning capabilities, or does it merely represent another “ticket to be punched?”
- ✦ Should the professional development training of reserve officers mirror regular force training, or only include certain elements of it?
- ✦ For recent graduates of the Canadian Land Force Staff Course and the Command and Staff Course: is there any utility in having two courses, or should all the training be provided in one course? The courses were established with the assumption that each would be offered several years apart, but some officers are attending these “back-to-back.” Can a sufficiently long break be achieved between the two courses?
- ✦ What are the practical effects of the nearly continuous reorganization that the Army has undergone in the last few years? How can stability be achieved?



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### WE'VE CHANGED OUR LOCATION...

Please note that the Managing Editor has moved and can now be contacted at the following address and telephone numbers:

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## THE ARMY PROFESSIONAL READING LIST

Despite the claims made by cyberspace mavens, print is not dead and continues to grow in popularity. The number of books and newspapers published continues to increase and this trend is expected to continue. With so many titles available it is often difficult to determine which are suitable professional reading. To help eliminate this dilemma, *The Army Doctrine and Training Bulletin* is compiling a list of 100 books that should be read by members of the military profession. The aim is to provide a varied list of books that will enhance the reader's professional knowledge. The general categories for titles is as follows:

- ✦ Military theory
- ✦ Military history
- ✦ The Nature of War
- ✦ Operations Other Than War
- ✦ Leadership
- ✦ Technology
- ✦ Ethics
- ✦ General history
- ✦ Biography
- ✦ Social, economic, and political theory and history
- ✦ Classical Literature
- ✦ Fiction

Readers are invited to send in nominations for these or any other categories. Submissions must include the author's name, full title, publishing data, and where possible the ISBN.<sup>1</sup> A synopsis of the book and reasons why it should be on the list must also be included. The list will be reviewed by the Bulletin Editorial Board and

published in the Bulletin once 100 titles have been collected. The final list will include full publishing data and a synopsis of each book.

An example title is:

McKercher, B.J.C. and Hennessy, Michael A., Editors.  
*The Operational Art: Developments in the Theories of War*. Westport, Conn: Praeger, 1996. ISBN: 0-275-95305-X.

This book is a collection of essays from the Twenty-First Annual Military History Symposium held at The Royal Military College of Canada in 1995. They examine the legacy of the 1976 version of the US Army's field manual FM 100-5 *Operations*, which heralded a resurgence of "operational art," on mainstream military thought by examining its historical and trans-national antecedents. Topics include "Operational Art: Developments in the Theory of War"; "Operational Art and the Canadian Army's Way of War"; and "The Revolution in Military Affairs: Its Implications for Doctrine and Force Development Within the U.S. Army." Authors include John English, Bill McAndrew, David Glantz and others.



## ENDNOTE

<sup>1</sup> International Standard Book Number, which appears with the publishing data, provides the easiest and fastest method of locating titles in libraries and bookstores.

## THE LAND FORCE DOCTRINE AND TRAINING SYSTEM

The Minister of National Defence's March 1997 *Report to the Prime Minister on the Leadership and Management of the Canadian Forces* stated that a new major-general position would be established with broad responsibility for Land Force doctrine and training. This new organization was established in Kingston in 1997 under the Commander 1st Canadian Division, who was given the additional title of Army Training Authority. The organization included the Canadian Land Force Command and Staff College (CLFCSC), the Directorate of Army Training (DAT), the Directorate of Army Doctrine

(DAD), the Directorate of Land Strategic Concepts (DLSC), the Army Lessons Learned Centre (ALLC), the Peace Support Training Centre (PSTC), the Joint Command and Staff Training Centre (JCSTC), and a Training and Doctrine Coordination cell. These elements were initially organized as shown at Figure 1.

A review of this structure was commissioned by the Commander 1st Canadian Division in the fall of 1998 with a view to rationalizing it and improving its efficiency. This review produced a number of recommendations, and in December 1998 detailed design work began on a new structure.

In January 1999, the Chief of the Land Staff (CLS) directed several additional major changes to the Army's training system, with the objective of bringing greater unity to the management and conduct of training. Among other things, the training responsibilities of the Army Training Authority were broadened to include taking under command the training schools and associated training command and control organizations of the Combat Training Centre Gagetown (less garrison elements, which will become 3 Area Support Group), plus the Canadian Parachute Centre in the year 2000. Control of standards staffs across the Army will be assumed as soon as possible.

In parallel with these decisions, Armed Forces Council decided that 1st Canadian Division would become a permanent Joint Force Headquarters after Op ABACUS, and that the division headquarters would be disbanded. The specific command and control arrangements for the Joint Force Headquarters and residual division-level capabilities to be retained by the Army are currently being worked out. The Army will keep the major-general position and, consistent with the Minister's 1997 statement, focus the responsibilities on training, doctrine, and Future Army development.

On 10 February 1999, the CLS approved in principle a conceptual model for the new Land Force Doctrine and Training System

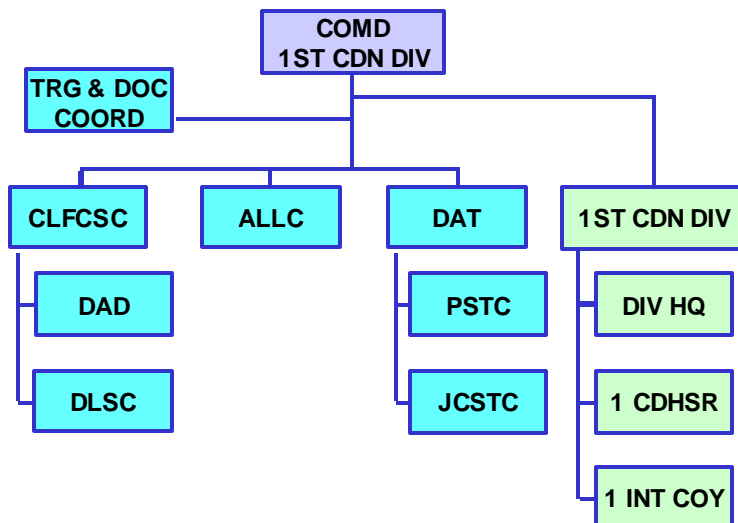
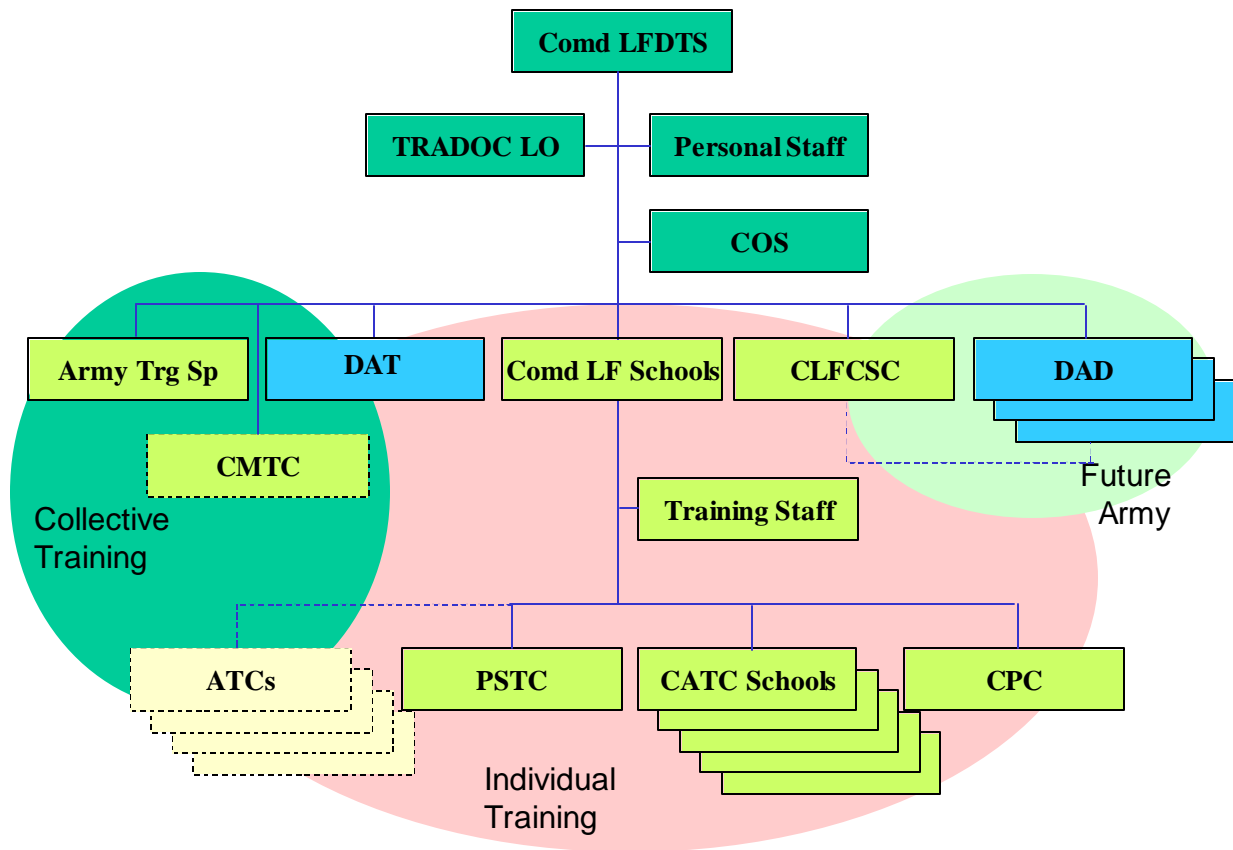


Figure 1: Initial Structure



**Figure 2: Conceptual Model**

(LFDTS) shown at Figure 2. It proposes a structure based on three principal areas: individual training, collective training support, and doctrine and Army of Tomorrow/Future Army development. The structure allows the Commander LFDTS to focus energies on the areas of individual and collective training, and delegate responsibility of future Army development work to the Commandant Canadian Land Force Command and Staff College. Detailed design work has continued since the February briefing to CLS. Figure 3 shows the actual organizational structure that is being gradually implemented. Key elements include:

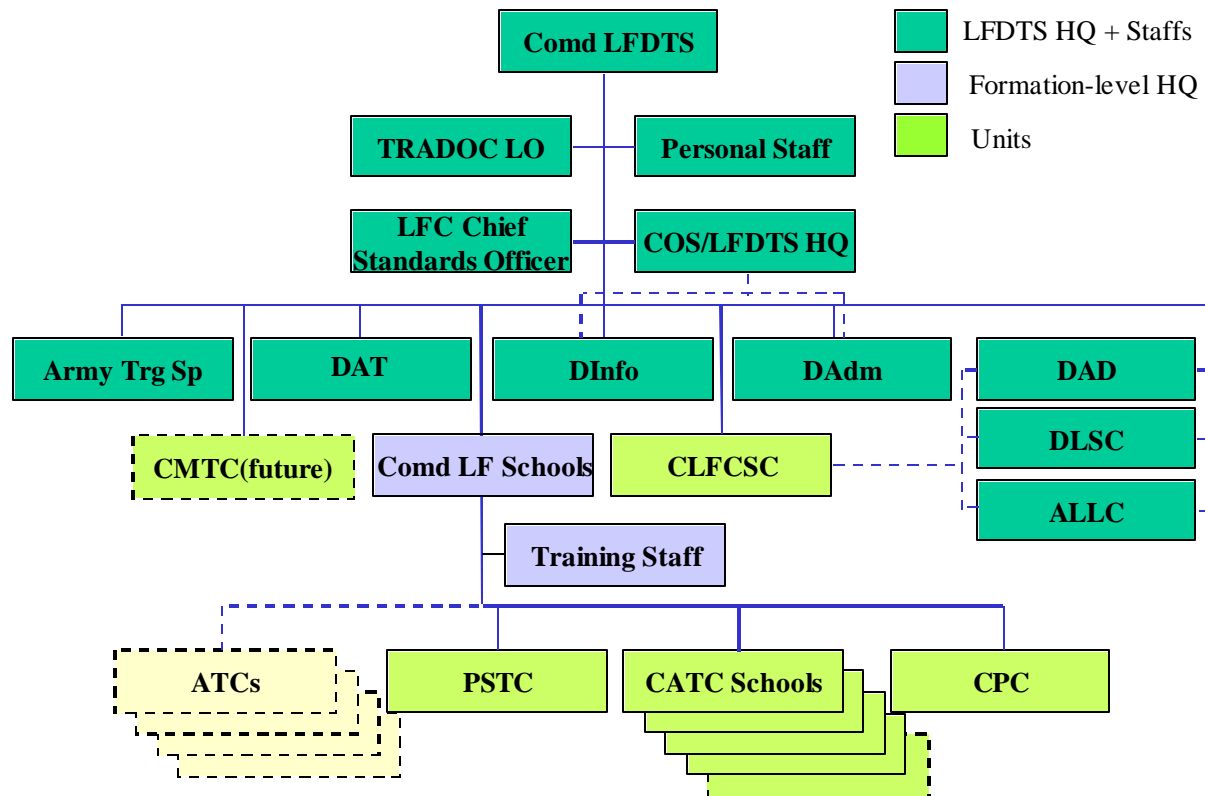
- ✦ a new LFDTS headquarters in Kingston, which is responsible for planning and coordinating the

work of the organization and assisting the Commander LFDTS in the management of resources. Attached to this headquarters will be the Land Force Command Chief Standards Officer and a liaison officer from US Army Training and Doctrine Command. Activation took place during July 1999;

- ✦ a "Land Force Schools" (working title at present) headquarters in Gagetown responsible for managing the delivery of Army individual training and for exercising formation command of Army schools. Activation is planned for 2000;
- ✦ CLFCSC, less its former administrative and information support functions, responsible for

command and staff training of officers. The Commandant is Deputy Commander LFDTS, who also has responsibility for overseeing the Future Army and Army of Tomorrow work of DAD, DLSC and ALLC. This is already in place;

- ✦ an Army Training Support Centre, built upon the current Joint Command and Staff Training Centre, with broader responsibilities for managing simulation support to Army collective training. Transition plans are still in development;
- ✦ depending on the outcome of the Weapons Effect Simulation Project, a future Canadian Manoeuvre Training Centre may come under command the Commander LFDTS;



**Figure 3: New LFDTS Structure**

- ✦ a restructured and expanded Directorate of Army Training. Transition has begun;
- ✦ the current Directorate of Army Doctrine, Directorate of Land Strategic Concepts, and the Army Lessons Learned Centre, slightly modified from their current structures;
- ✦ a new Directorate of Administration, responsible for providing administrative and garrison support to the Kingston elements of the LFDTS organization, in cooperation with the host base. This is now in place;
- ✦ a new Directorate of Information or Chief Information Officer organization responsible for

managing the information backbone of the LFDTS organization, including both paper-based and electronic means. This is also in place; and

- ✦ all of the Army's central schools. Area Training Centres remain under Area command.

The new directorates of administration and information stood up on 1 April 1999, and the Land Force Command Chief Standards Officer has been appointed. Internal structural changes in DAT also began in April. LFDTS Headquarters stood up in July 99. Most parts of the new organization will initially be under strength with the objective of having a reasonably robust structure in place

by the summer of 2000, and with the full establishment in place by 2001 or 2002.

The development and implementation of this new organization is work in progress, and there are a number of significant challenges to be met (not least of which is finding the personnel resources needed). We will provide periodic updates on progress and any changes in plan in future issues of *The Bulletin*.



## FROM THE DIRECTORATE OF ARMY DOCTRINE

### IMPLEMENTATION OF STANDARDIZED FORMATION AND UNIT STANDING OPERATING PROCEDURES FOR THE ARMY

Over the last three years, considerable effort has been expended to examine and realign army doctrine in support of the Chief of Land Staff's goals of unity and enhanced operational capability. Toward this end, the Directorate of Army Doctrine (DAD) has developed standardized techniques and procedures for use across the Army.

Following recommendations made by the Army Training Board at the spring 1997 Army Council, the Chief of Land Staff directed that core Standing Operating Procedures (SOP) be developed for the Army with two objectives in mind: firstly, to standardize operating procedures throughout the Army; and secondly, to update these procedures based on new doctrine, technology, equipment, and operational developments for the twenty-first century. Work to develop these SOP commenced in September 1997, with DAD 6-3 (Command) as project manager. Following a two-year process, two sets of core SOP were produced for the Army:

- ✦ B-GL-332-001/FP-001, *Unit Standing Operating Procedures and Tactical Aide-Memoire (USOP/TAM)*, designed to provide unit commanders and their subordinates with the information required to readily conduct missions at the tactical level; and
- ✦ B-GL-333-001/FP-001, *Formation Standing Operating Procedures*

(FSOP), which provides formation commanders and their staff with the required information and procedures to plan and conduct operations at formation and tactical force level.

Army Council was briefed on both SOP on 8 January 1999, and the Chief of the Land Staff approved their implementation effective 1 April 1999. A CANLANDGEN<sup>1</sup> was issued in February to announce this decision.

#### DESCRIPTION

The FSOP and USOP/TAM were developed from available sources and publications. They reflect emerging doctrinal concepts and new operational requirements for the conduct of tactical operations at the unit and formation level. These standardized procedures provide all Army units, formations, and task forces with a core of standardized standing operating procedures. They were developed in co-operation with division, brigade, staff college, and school staffs. All DAD sections also provided input.

The doctrine and concepts outlined in FSOP and USOP/TAM are applicable to the tactical level in both war and operations other than war. They have been developed using the following concepts and structure:

- ✦ Since the nature of doctrine and operations are continually evolving, the content of the

documents is not fixed. It will evolve as required to suit operational application.

- ✦ The FSOP and USOP/TAM are organized in nine parts. The first seven parts are common to both (adjusted to the appropriate level), and are closely related to each other. Part 8 differs in each document, and Part 9 is found in the FSOP only, as described below.
- ✦ Parts 1 to 6 discuss the six combat functions: command, information operations, manoeuvre, firepower, protection, and sustainment. Part 6, which deals with sustainment, discusses this subject from the operational to the tactical level, including: The Sustainment System, Support Services in Operations, Administrative System, Replenishment, Supply, Dumping, Repair and Recovery, Personnel Administration Services, and Health Services. These form the backbone of the new support services doctrine, and must be applied in concert with the new sustainment doctrine, which will be published shortly.
- ✦ Part 7—Reports and Returns. This part includes all applicable and approved message formats as per the *Compendium of Allied Land Force Messages* (NATO APP 9), ratified by Canada in May 1998.
- ✦ Part 8 differs for each book. In the USOP/TAM, it includes inserts by



each combat and support arm, allowing each arm a means to standardize procedures and drills for their specific use. The update of each arm insert is the responsibility of the respective school or control organization. In the FSOP, Part 8 provides formation level headquarters with the new approved NATO formats for orders and annexes, and the required direction and procedure to produce them.

- ♣ Part 9—Joint Task Force Operations, is included in the FSOP only, and is applicable to formation level only. This part covers all activities at operational and tactical level, and the transition to strategic level. It provides detailed information, procedures, and doctrine for operations at formation, task force, and joint task force level, domestically or outside of Canada.

The *Unit Standing Operating Procedures and Tactical Aide-Mémoire* (B-GL-332-001/FP-001) was published in April 1999. It will be

issued to all personnel employed in command positions or attending leadership courses. This document will also be released to unit or base libraries. Control for issue is to all leaders and commanders at the unit/sub-unit level and below.

*Formation Standing Operating Procedures* (B-GL-333-001/FP-001) was published electronically in June 1999 and distributed throughout the Army, joint headquarters, staff college, training establishments, and allied headquarters. It will also be printed in a limited edition later this fall. The electronic document includes hyperlinks, which automatically and easily connect the user to other publications, information, text or message formats. The FSOP also establishes communication procedures for use between unit and formation level.

#### CONCLUSION

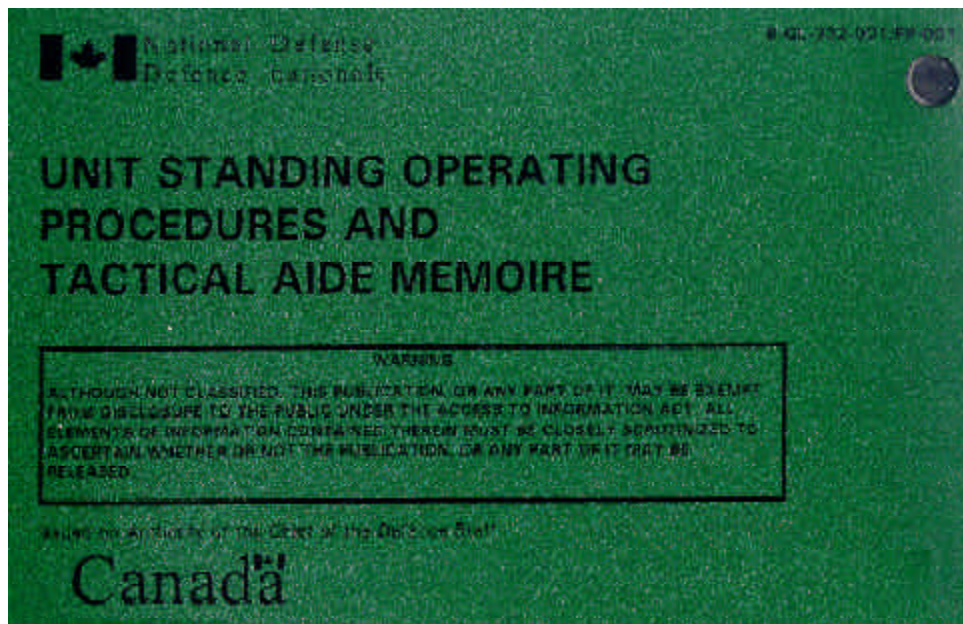
The production of the FSOP and USOP/TAM is a major step toward standardisation and interoperability

within the Army. Units and formations will be able to operate more easily with each other as they train, organize, deploy, and execute assigned missions and tasks. Moreover, FSOP will allow all Canadian Forces elements to work as a joint organization. The part on Joint Task Force Operations covers in detail the required information, techniques, and procedures to operate anywhere in the world, throughout the entire spectrum of conflict.



#### ENDNOTE

- 1 CANLANDGEN 001/99 CLS 9008 171900Z Feb 99.



## FROM THE DIRECTORATE OF ARMY DOCTRINE

### FIREPOWER: A PRIMER FOR THE NEW MANUAL

The army defines six combat functions, which, when integrated, enable commanders to apply overwhelming combat power against the enemy where and when it is most beneficial. This is accomplished through the application of tempo, synchronization of forces, and the designation of the main effort to convert the potential of forces, resources, and opportunities into capabilities far greater than the sum of the parts. The six combat functions are command, information operations, manoeuvre, firepower, protection, and sustainment.

Firepower is a key element in defeating the enemy's ability and will to fight. Firepower, integrated with manoeuvre or independent of it, is used to destroy, neutralize, suppress, and harass the enemy. Its effects occur at the strategic, operational, and tactical levels, and must be synchronized with other attack systems. Maximum firepower effectiveness requires the full integration of army and joint service systems and procedures to determine engagement priorities, locate, identify, and track targets, allocate firepower assets, and assess battle damage. Firepower should be viewed as a joint concept as it includes conventional land, air, and maritime weapons effects. It encompasses the collective and coordinated use of target acquisition data from all sources, direct and indirect fire weapons, armed aircraft of all types, and other lethal and non-lethal means against air, ground, and sea targets.

#### AIM

The aim of this article is to serve as a primer for the Army's soon-to-be published doctrine manual B-GL-300-007/FP-001, *Firepower*. This manual outlines the

doctrinal approach to firepower and covers the fire support system, targeting, air defence, and non-lethal weapons.

#### THE APPLICATION OF FIREPOWER

When it is integrated with manoeuvre or employed independently, firepower can be used to destroy, neutralize, suppress, and harass the enemy. As one of the principle means of generating combat power, it can be used for both fixing and striking the enemy, and can attack the enemy on the moral and the physical plane. Ownership of the various firepower assets is irrelevant—the focus should be on coordinating available weapons platforms to produce the maximum effect on the enemy as directed by the commander.

Firepower is divided into two categories: those weapons that are organic to a manoeuvre unit (which are usually direct fire in nature) and those employed primarily in fire support and air defence. Fire support includes field artillery, mortars and other non-line of sight fire, naval gunfire, tactical air support, and elements of offensive information operations (IO).

Firepower is used for both fixing and striking. Implicit in both of these dynamic forces is finding, an activity for which firepower organizations are well suited (e.g. artillery target acquisition). The utility of firepower demands coordination with other battlefield activities to achieve the greatest combined effect upon the enemy. The sudden lethal effects of firepower can cause localized disruption and dislocation, which may be exploited by manoeuvre. Firepower is also coordinated with information operations to ensure that electronic and

psychological attack reinforces the physical and morale effects of firepower and manoeuvre. Using a combination of weapon systems to complicate the opponent's response is always desirable. The use of firepower, and the threat of its use, can have a tremendous effect upon enemy morale.

Firepower is closely related to the other combat functions. Organic firepower is integral to manoeuvre units, while non-organic firepower (in the form of fire support) is provided from resources beyond the manoeuvre unit commander's control. Firepower contributes to the protection of the force by fixing the enemy through neutralizing fire while friendly forces are manoeuvring, or by destroying the enemy before he is in a position to attack effectively. IO provides firepower systems with the necessary communications architecture, the means to acquire targets and, through offensive IO, a means of target engagement. Firepower resources require an effective command structure capable of translating the commander's intention and concept of operations into action. This involves procedures that are relevant, responsive, and compatible with modern command and control (C2) technology. Finally, without careful sustainment planning and coordination (particularly for the re-supply of ammunition), firepower cannot function.

#### FIRE SUPPORT

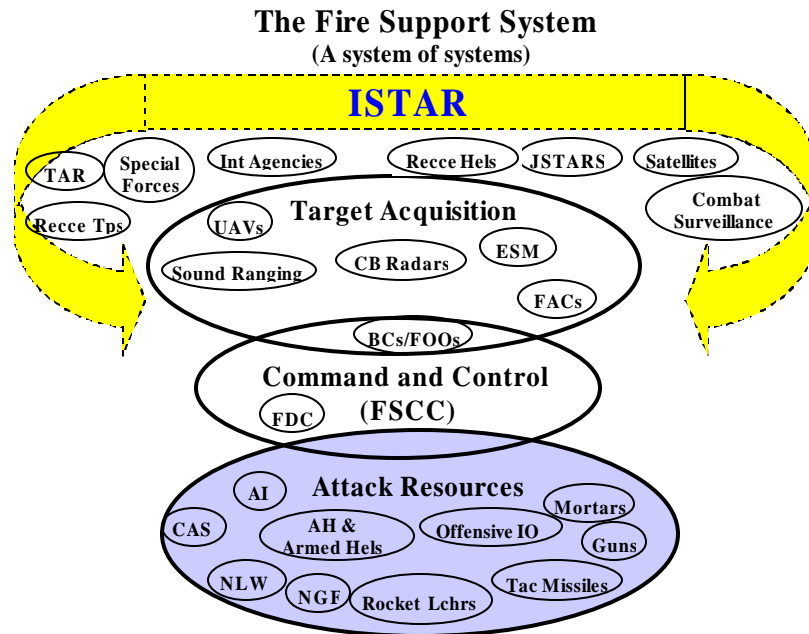
Fire support is the collective and coordinated use of the fire of land and sea-based indirect fire systems, armed aircraft, offensive IO, and non-lethal munitions against ground targets to support land combat operations at both



the operational and tactical levels. Fire support involves the integration and synchronization of fire and effects to delay, disrupt, or destroy enemy forces, combat functions, and facilities in pursuit of operational and tactical objectives. It includes field artillery, mortars, naval fire, and air-delivered weapons. The force commander employs these means to both support his manoeuvre plan and to engage enemy forces in depth. Fire support planning and coordination are essential at allechelons of command.

Generating effective firepower against an enemy requires that organic and supporting firepower be integrated with the other combat functions. Subordinate systems and processes for determining priorities for fire, identifying and locating targets, allocating assets, attacking targets, and assessing battle damage must also be fully integrated. Fire support provides for the planning and execution of fire so the right targets are effectively attacked.

Commanders are responsible for fighting their fire and manoeuvre assets. A significant portion of the firepower available to a commander comes from sources external to his command. Consequently, the ability to employ all available firepower throughout the depth of the battlefield, as an integrated and synchronized whole, is done through the process of fire support planning, coordination, and execution. The artillery commander coordinates fire support by binding fire support resources together so that the multiple effects of each asset are synchronized with the force commander's intent and concept of operations. Manoeuvre commanders must understand the capabilities and limitations of all fire support means, and must integrate fire support into their operational plans. Conversely, the artillery commander must be clear on the supported commander's concept of operations. The effective planning, coordination, and synchronization of fire support is



**Figure 1: The Fire Support System**

**Notes to Figure 1:**

1. Fire Support Target Acquisition (TA) resources are part of the Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) system. ISTAR links intelligence, surveillance, TA and reconnaissance to provide the commander with situational awareness, to optimize the detection, location, and identification of targets to cue manoeuvre and attack resources.
2. Battery Commanders (BCs) and Forward Observation Officers (FOOs) perform both TA and fire control coordination functions, and therefore span two components of the Fire Support System.
3. Electronic Support Measures (ESM) are defined as that division of electronic warfare (EW) involving actions taken to search for, intercept and identify electro-magnetic emissions and locate their sources for the purpose of immediate threat recognition.

TAR – Tactical Air Reconnaissance

UAV – Unmanned Aerial Vehicle

CB – Counter Battery

FAC – Forward Air Controller

AI – Air Interdiction

CAS – Close Air Support

NLW – Non-Lethal Weapon

NGF – Naval Gunfire

AH – Attack Helicopter

JSTAR – Joint Surveillance and Target Attack Radar System

FDC – Fire Direction Centre

critical to success in war and operations other than war (OOTW).

The fire support system is an integrated entity composed of a diverse group of components, which must function in a coordinated manner to support the commander's plan. These components include command and control, target acquisition systems, and attack resources, as depicted in figure 1.

The integration and synchronization of fire support with the commander's battle plan is achieved through the process of fire support planning and coordination. Formal planning and coordination binds the fire support resources together in a common effort with the aim of attacking targets with the most effective and efficient attack resource(s) in accordance with the commander's intent. In coordinating fire support, cooperation among the various fire support agencies is necessary for the effective delivery of fire. Fire support coordination is conducted at all levels of command from combat team and up.

The activities of the fire support system must be closely integrated with the manoeuvre commander's concept of operations and plan. The constituent components of the system must action in unison and must be responsive to the needs of the supported unit or formation commander. Fire support coordination (which is the responsibility of the senior artillery commander) enables the necessary advice, planning, and execution of fire support so that the right targets are attacked to achieve the manoeuvre commander's intended effects. To effect the required coordination, the artillery commander establishes a Fire Support Coordination Centre (FSCC) within the operations centre of the supported unit or formation headquarters. The coordination process is further refined by the use of fire support coordination measures, which set conditions on the application of fire within designated areas.

## TARGETING

Targeting is defined as "the process of selecting targets and matching the appropriate response to them taking account of operational requirements and capabilities."<sup>1</sup> The targeting process assists the commander by determining which targets are to be acquired and attacked, when they are to be attacked, and what is required to defeat the target. The methodology facilitates the coordination of Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) and strike assets such as air, aviation, indirect fire, and offensive IO ensuring that they are properly integrated and that the most effective engagement means is used to attack each target.

A target is an enemy function, formation, equipment, facility or terrain, planned for destruction, neutralization, or suppression in order to delay, disrupt, divert, limit or destroy the enemy. The emphasis is on identifying resources that the enemy can least afford to lose for each phase of the battle. Denying these resources to the enemy strips him of initiative and forces him to conform to friendly battle plans.

Targeting is a dynamic and continuous process that lends itself to a systematic and analytical approach to the attack of important targets. The targeting process provides an effective method for matching the friendly force capabilities against enemy targets. The objectives of targeting must be easily understood across the combined and joint environment. Targeting objectives must focus assets on enemy capabilities that could interfere with the achievement of friendly missions.

At division level, the targeting process is carried out within the deep operations coordination centre (DOCC). The DOCC is located at the main command post, and acts as a focal point for the planning, coordination, synchronization, and execution of the division deep operations. The DOCC acts as a battle command and control

facility providing the commander with a means to focus the activities of all the units, agencies, and cells involved in supporting deep operations. The DOCC is comprised of individuals representing current operations, plans, intelligence, combat service support, and FSCC (including air, aviation and air defence) cells under the supervision of the G3 Deep Operations. DOCC members provide the essential coordination interface with their affiliated cells, and their responsibilities reflect the deep operations concerns of their areas of specialization.

The DOCC works directly for the formation chief of staff, who on behalf of the commander, is the approving authority for deep operations. The DOCC stays abreast of the status of close and rear operations, and continually assesses the relationship of these activities with deep operations criteria. Through the targeting process, targets are selected and detection assets are allocated and employed. Below division level, the targeting function is resident in the applicable FSCC.

The targeting methodology is characterized by four related functions known as decide, detect (including the requirement to track a target), deliver, and assess. The targeting process is closely associated with Intelligence Preparation of the Battlefield (IPB), the continuous analyses of the enemy, weather and terrain in the area of operations. IPB provides much of the information for targeting in that it evaluates enemy capabilities and predicts enemy courses of action (COA) with respect to battlefield conditions.

The modern battlefield presents many targets of different types and vulnerabilities, exceeding the number of resources available to acquire and attack them. The commander must determine which targets are most important to the enemy and, of those targets, which ones he must acquire and attack to accomplish his mission. Targeting assists the commander in making these decisions.

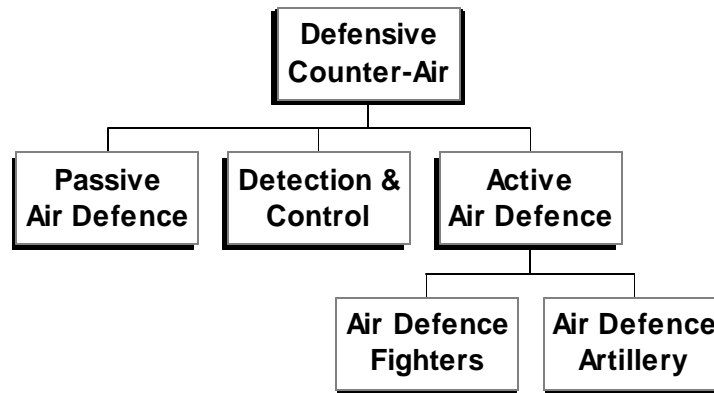
## AIR DEFENCE

The air battle is an integral part of the joint battle. The Air Defence (AD) chapter of the manual provides the doctrinal foundations for Army AD operations in joint and combined operations. AD artillery is the term for the army's contribution to joint counter-air operations. It includes offensive and defensive actions to counter the air threat.

AD operations span two combat functions. Within Canadian doctrine, AD is part of the protection function, as its primary role is to protect the force from air attack. AD can be positioned and employed with the aim of attacking and destroying enemy air vehicles, rather than defending specific assets, and is therefore also a component of the firepower function. AD also contributes to IO by providing integrated air situation awareness.

Like terrain, theatre airspace is a critical dimension of joint operations. Airspace is used for critical purposes including manoeuvre, indirect fire support, reconnaissance and surveillance, transportation, and battle command. Effective control and coordination of airspace will have a significant impact on the outcome of campaigns and battles. Joint commanders must consider airspace and the apportionment of air power in planning and supporting their operations. Commanders must expect the enemy to contest their use of the airspace, and protect friendly forces from enemy observation and attack. AD operations contribute to gaining and maintaining the desired degree of air superiority and force protection, and contribute to information operations by the use of AD surveillance systems (optical, electronic etc).

The role of the AD artillery is to prevent the enemy from interfering with land operations from the air. This encompasses both active and passive measures. AD artillery contributes to



**Figure 2: The components of defensive counter-air operations.**

the overall counter-air campaign through the destruction of the enemy's air assets, including fixed wing aircraft, helicopters, missiles, and unmanned aerial vehicles (UAV).

Counter-air operations are combat operations directed against the enemy's air offensive and defensive capability in order to attain and maintain a desired degree of air superiority.<sup>2</sup> Air superiority, achieved at the crucial time and place, provides friendly forces with a more favourable environment in which to dominate air, land, and sea operations. Friendly control of the air prevents the enemy from using air power effectively against friendly forces and rear areas, while allowing friendly use of air power against the enemy. Limiting the enemy's use of air power increases our potential for success. Since offensive and defensive operations must often rely on the same airspace and resources, they cannot be considered in isolation from each other. The emphasis on either offensive or defensive counter-air operations will depend on the overall situation and the joint force commander's concept of operations. Counter-air operations are joint by nature, affecting air, land, and maritime battles, and often blurring the boundaries between them.

Offensive counter-air operations occur throughout the battlefield and are

generally conducted at the initiative of friendly forces. The following roles are employed to prosecute offensive counter-air operations:

- ✦ Airfield Attack—to destroy and disrupt enemy air operations.
- ✦ Fighter Sweep—to seek out and destroy enemy aircraft or targets of opportunity in an allocated area of operations.
- ✦ Suppression of Enemy Air Defences (SEAD)—this enables air operations to be conducted successfully. Lethal and non-lethal attacks are directed against enemy air defence systems to destroy, neutralize or temporarily degrade them.

Defensive counter-air operations are generally reactive against enemy air activity, and involve both active and passive measures, which rely for their effectiveness on detection and command and control systems. The components of defensive counter-air operations are shown at figure 2.

AD artillery is an important component of defensive counter-air operations. It increases the manoeuvre commander's freedom of movement by decreasing the enemy's ability to interfere with ground operations

through air power. Full integration of all AD systems is vital in ensuring the maximum effectiveness of defensive counter-air operations.

AD can either be active or passive. Active AD consists of actions taken to destroy enemy air vehicles by means of fighter interceptor, combat air patrol, and AD artillery. Passive AD consists of taking measures to decrease friendly forces' vulnerability to air attack. AD artillery can be employed in an attritional posture or a defensive posture. Attritional AD places the emphasis on destroying enemy aircraft, whereas defensive AD concentrates on protecting friendly assets.

### NON-LETHAL WEAPONS

As stated, Non-lethal Weapons (NLW) are included in firepower. NLW are defined as those weapons, munitions, and devices that are explicitly designed and primarily employed to incapacitate personnel or materiel, while minimizing fatalities and permanent injury to personnel and undesired damage to property or the environment. This definition does not include information operations (e.g. jamming, psychological operations, etc.) or any other military capability not designed specifically for the purpose of minimizing fatalities, permanent injury to personnel, and undesired damage to the environment, even though these capabilities may have non-lethal effects (e.g. smoke and illumination).

The core capabilities associated with NLW fall into two major classes: anti-personnel and anti-materiel. NLW for use against personnel are designed to incapacitate people or control their activities in accordance with the mission objectives while minimizing fatalities or serious casualties. Anti-materiel NLW enhance the ability of a force to achieve its mission objectives by reducing or eliminating the enemy's ability to use their equipment and supporting infrastructure.

**Electromagnetic:** lasers, optical munitions, high-powered microwaves, and conductive materials

**Acoustic:** Sound and shock waves that influence internal organs

**Chemical:** super-corrosives and super caustics, fuel modifiers, liquid metal embrittlement, anti-traction agents, and super-adhesives

**Biological/Bacteriological:** organisms designed to degrade material such as explosives, rubber, fuel, and electrical components

**Kinetic:** non-penetrating projectiles such as rubber or plastic bullet/ball, baton rounds, bean bag rounds, etc.

**Figure 3: NLW Categories**

NLW are becoming increasingly employed across the spectrum of conflict, and are being developed and acquired by many countries. NLW can facilitate manoeuvre, and augment and intensify the synergistic effects of conventional weapons. Many NLW use off-the-shelf technology, which means that their use by or proliferation to enemy forces must be expected, thus necessitating the need for counter-measures. It is therefore important that a clear understanding of NLW capabilities and principles of employment be articulated for the Canadian army.

In the modern operational environment, conventional firepower or the threat of lethal force may not be appropriate solutions to situation that were previously handled by traditional military responses. With increased public scrutiny concerning the use of military force, NLW offer the Army a wide variety of employment options across the entire spectrum of conflict. NLW must be fully integrated with traditional conventional weapon systems. Although they may be used alone or with other similar systems, they must always be reinforced with lethal force.

Many of the newer NLW systems are technologically immature; uncertainty remains as to the effects

of their application, making it difficult to assess their effectiveness in a military situation. The introduction of NLW also presents numerous legal questions, which must be satisfactorily resolved before their use in operations. The process of developing and/or acquiring a NLW capability by the Canadian army bears with it the obligation of determining whether its employment would, in some or all circumstances, be prohibited by the Law of Armed Conflict (LOAC).

### CONCLUSION

Firepower is one of six combat functions. It is a key element in defeating the enemy's ability and will to fight. Firepower is a joint concept including conventional land, air, and maritime effects. When used in conjunction with the other combat functions, it plays a major role in the defeat of the enemy.



## ENDNOTES

1 AAP-6 NATO Glossary.

2 AAP-6 NATO Glossary.

## FROM THE DIRECTORATE OF ARMY TRAINING

### LEARNING THROUGH DESKTOP SIMULATION: THE RATIONALE FOR ACQUIRING A CANADIAN VERSION OF TacOps

Simulations are valuable instructional tools that allow us to provide learners with realistic scenarios from which to gain experience. The best way to learn how to do something is to do it. However, it is sometimes impractical or unrealistic to allow a student to actually perform a given skill (the equipment might not be available, or it might be too expensive to allow a given number of students to learn by doing). In situations where it is too expensive, dangerous, or impractical to perform the skills they wish to learn, we can provide students with realistic experience through simulations.<sup>2</sup>

Unfortunately, design, development, and production costs have traditionally limited the number of simulators available to students. A simulator that mimics the actions and feel of operational equipment costs millions of dollars. Today's powerful microcomputers provide a more cost-effective platform for delivering a simulated environment; they allow for dynamic interaction, 3-D graphics animation, and even digital video in virtual reality format at a reasonable price. A 1998 survey conducted by the National Training Systems Association shows that the US Department of Defense is moving away from large scale proprietary simulation to deployable, reconfigurable, non-proprietary systems on PC platforms.<sup>3</sup> The trend is away from stand-alone simulators towards networked systems in a distributed environment. Desktop simulation will not replace simulators for high-level tactical or operational training, but will make simulator time more effective. Based on that rationale, the Land Force is obtaining a

customized Canadian version of TacOps, which is an off-the-shelf tactical level desktop computer simulation.

*While a significant part of learning certainly comes from teaching—by good teaching and by good teachers—a major measure comes from exploration, from reinventing the wheel and finding out for oneself.<sup>1</sup>*

#### SIMULATION IN CANADA'S ARMY

In the Army, simulation will be integrated with other training approaches in order to enable commanders to better prepare their soldiers for operational tasks.<sup>4</sup> Simulation will enhance, not replace, other forms of training. It will greatly assist in the acquisition and maintenance of essential skills and tactical proficiency, which will enhance survivability on the modern battlefield. Used imaginatively, simulation is a powerful training multiplier, ensuring the training excellence of our troops. Recent technological advances in simulation have greatly improved the capability of this technology to act as a training multiplier. Simulation technology can replicate the battlefield environment used in individual and collective training of combat troops at a level of fidelity never before witnessed outside combat. The resulting

combination of confidence in the commander's leadership, in the soldier's skills, and in their equipment is the key to success on any modern battlefield.

Training simulation is a cornerstone of the present and future Army Training Strategy. To appreciate how it came to be so, it is necessary to understand the origins of our present training simulation policy. As a result of the end of the cold war, we have witnessed significant reductions in Defence funding from 1989 to the present. As with every other army in the world, ours found its budgets and force structure reduced in the interests of deficit reduction or social programs. By 1991, the Army had experienced significant cuts in both its budget and force structure, while at the same time conducting the largest operational overseas deployment of troops since Korea. The Army was torn between two conflicting priorities: on one hand, there was the stated policy and professional requirement to maintain a general purpose combat capability; on the other, there was the operational requirement to support training for Operations Other than War, namely ongoing peacekeeping and humanitarian aid missions. Both of these requirements had to be supported with ever-dwindling training resources.

Therefore, resources allocated to general-purpose combat training had to also support training for Operations Other than War. This sharing of resources has had a pronounced effect on training dedicated to support the Army's general warfighting capability. For example, the last RENDEZ-VOUS (RV) exercise was in 1992; the event scheduled for 1994 was cancelled,

1995 was re-designated as a training exercise for Operation COBRA, and there is no plan for another RV exercise in the foreseeable future. We have also witnessed a continual decrease in the number of Brigade exercises, going from twice per year in the late 80s to one every two years at present—even this frequency might be unaffordable, given the current state of the army budget. In addition, the loss of stationed forces in Germany has denied us the training benefits of the annual FALLEX exercises, as well as the mechanized and combined benefits of training in Europe. Furthermore, units have witnessed the inevitable erosion of their collective training (especially in an all-arms training scenario) as frequent UN rotations and reduced training budgets have forced a serious deterioration in all-arms training.

As early as 1992, it became apparent to the senior leadership of the Army that the strain on training resources was going to be protracted; thus there would have to be changes in traditional approaches to training. We simply could not afford either the dollars or the time to continue to train the “same old way.” The traditional training approach consisted of live fire on conventional and field firing ranges, practical field training, and major field training exercises. All of these approaches to training are now restricted by limited timeframes and financial resources.

In 1993, the Land Force Training Structure Review was completed. One of the many recommendations that were approved identified the requirement for a training simulation policy that would include guidelines for the acquisition of training simulation and guidance for the employment of training simulation within the Land Force. The initial draft of the policy was completed in 1994; the final version was issued in 1996. An updated version is due to be issued in 1999. A number of specific goals or intentions for training simulation have been identified by the Army:

- ✦ having the capability of training and retaining basic and advanced individual, crew, and unit skill sets on equipment in order to meet the standards for operationally assigned roles and missions;
- ✦ maximizing the value of money spent on live training (particularly on field training exercises) by preparing participants through procedural training and the achievement of skill gateways prior to participation in training;
- ✦ maintaining skill sets that would otherwise be prohibitively expensive to maintain (e.g., command and staff training at higher formations in a joint or combined scenario);
- ✦ evaluating and validating of training in accordance with the Army Systems Approach to Training; and
- ✦ achieving savings or increasing efficiency in O&M expenditures.

There are three levels of military simulation—Canada has adopted the NATO-defined groupings—each of which has been assigned a priority by the Land Force in its procurement strategy. Level one simulators are individual or crew simulators that provide practice in basic or advanced skills and procedures training. An example of this type of simulator is the Small Arms Trainer. Level two simulators are collective training simulators that provide unit level or higher collective training simulation. The weapons effects or MILES type simulator is an example of this type of simulator. Level three simulators are command and control simulators that provide up to formation level command and control training. JANUS or Battle Command Training simulators are examples of this type. The current Canadian army procurement strategy has determined that level two simulation is the first priority. The procurement of a suite of weapons effects simulators (WES) is the highest training technology procurement priority, and it

is the cornerstone of the Army Training Strategy for realistic and validated collective training. The second priority is level one simulation, which is an ongoing concern as older simulators are replaced or upgraded and new equipment becomes operational. The Cougar and Leopard crew gunnery trainers are examples of level one simulators. The third priority is level three or command and staff simulators. As an interim measure, the Army has procured suites of JANUS and a suite of the Battle Command Trainer to fill the gap in this area until a future command and staff training system is available and affordable within our available resource envelope. Acquisition priorities are dictated by achievability, which is based (to a large degree) on their relative affordability. The aim is to procure the best systems that can be had; and to obtain the maximum training benefit within the available resource envelope.

#### **DESKTOP COMPUTER SIMULATION AS AN INSTRUCTIONAL STRATEGY**

As discussed earlier, there is a trend within the modelling and simulation community to promote the use of desktop computer simulation as a cost-effective means of supporting a comprehensive simulation strategy. The use of computer simulations to model realistic learning environments can have substantial advantages over other traditional training approaches. The main advantage is that the learner will be actively engaged in exploration and learning.<sup>5</sup> Current learning theories tend to advocate the learner's active participation in the learning process.<sup>6</sup> This view is contrary to traditional pedagogic theories, which view the student as a tabula rasa or “blank slate” on which knowledge must be inscribed by the teacher. Simulation is an important and valuable tool because it is designed to encourage learning through exploration and experience. It provides a simplified world, in which,

the student solves problems, learns procedures, comes to comprehend the characteristics of phenomena, or learns what actions to take in various situations. The purpose of a simulation is to allow the student to build a useful mental model of part of the world, and to provide an opportunity to test it safely and efficiently.<sup>7</sup> A simulation-based approach offers the opportunity to learn in a relatively realistic problem-solving environment, to practice skills without danger or stress, to explore both real and artificial situations, to modify the time-scale of events, and to interact with simplified versions of the process or system being simulated.<sup>8</sup>

### CATEGORIES OF SIMULATIONS

Alessi and Trollop provide a useful categorization of desktop computer-based simulations to assist in understanding how they can be employed in the learning process.<sup>9</sup>

- ✦ **Physical.** In a computer-based physical simulation, a physical object is displayed on the computer screen, allowing the student an opportunity to manipulate the object to learn more about it.
- ✦ **Procedural.** The purpose of a procedural simulation is to teach a sequence of actions that constitutes a procedure. In a procedural simulation, whenever a student inputs an action, the computer reacts, providing feedback and information on the consequences of the student's actions.
- ✦ **Situational.** Situational simulations deal with attitudes and behaviours rather than physical skills. They allow the student to explore the effects of different strategies to resolve a situation or problem, or to experience different roles in a role-playing scenario.
- ✦ **Process.** In a process simulation the student is not actively involved in the simulation, or required to make

choices or take actions during the simulation. Rather, the student selects the values of variables at the beginning of the simulation, and then observes as the process occurs without intervention. An example of this type of simulation is computer tax programs that allow a user to input different Registered Retirement Savings Plan (RRSP) contributions to see the net effect on their overall tax rate.

### DESKTOP SIMULATION IN THE ARMY—WHY TACOPS?

The Army has recently supported simulation based Command Post Exercises (CPXs) because they are both effective and less costly than field exercises. Both the exercise participants and those supporting the exercise learn by being involved. The need for a tool that allows simulated tactical training led to the acquisition of JANUS by the Army in the mid 1990s. JANUS is a very capable constructive simulator used for tactical training from section to brigade levels. However, while JANUS is the training platform of choice, its cost and locations limit its capability to support unit and sub-unit, individual and collective training.

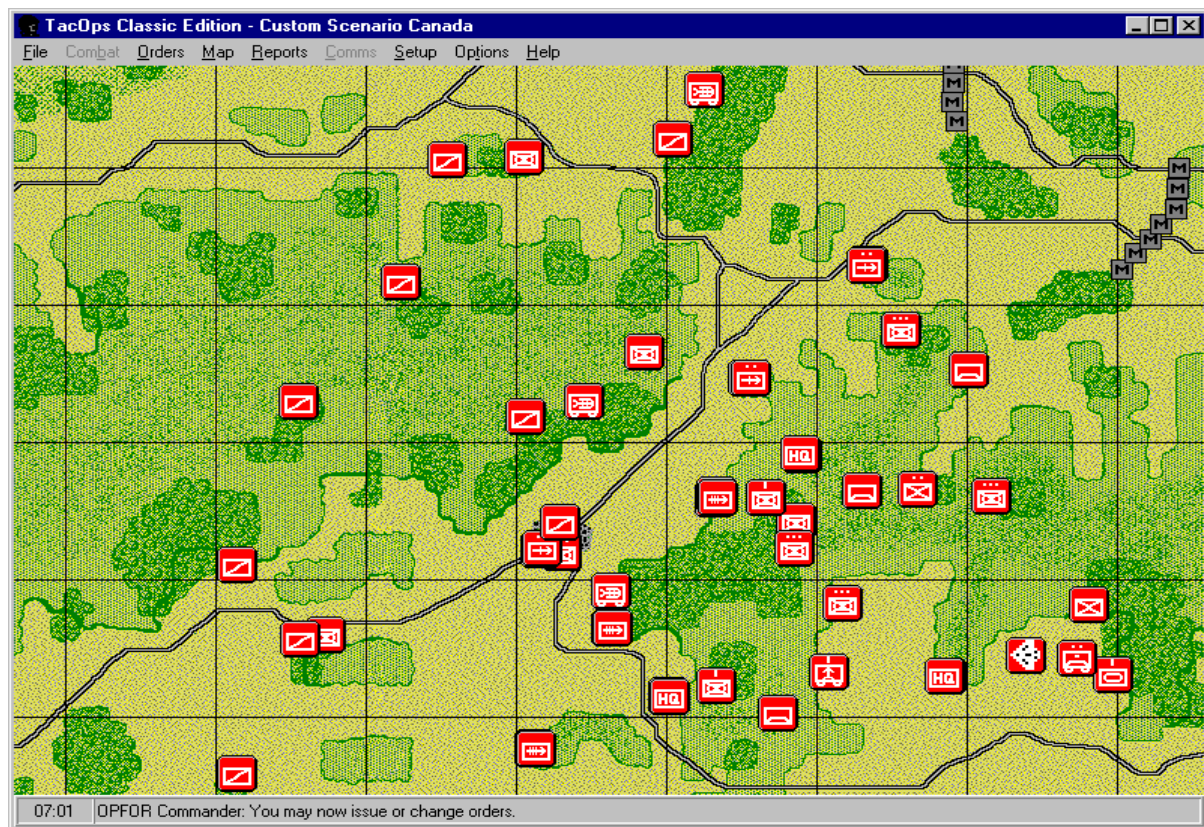
Based on this identified requirement, the Army looked towards affordable desktop computer-based simulations as a possible solution. Following a business case analysis, the Army recently initiated the purchase of a Canadian version of a tactical level combat desktop simulation called TacOps. TacOps is primarily a simulation of contemporary and near-future tactical, ground combat between Canadian and United States (CANUS) forces, and various opposing forces (OPFOR). Most vehicles, unit organizations, and weapons in the simulation are those that are expected to be in place by the year 2000. Some weapons and capabilities that are likely to be available over the next ten years are included as options, as are some

older organizations and weapons. The primary simulation focus of TacOps is ground operations from the perspective of the battalion or regimental commander. The movement and interaction of infantry and armour units is treated with great detail; supporting air and artillery activities are treated more conceptually. Unit markers (icons that are either NATO symbology or pictographs) typically represent platoon- and company-sized units, but can be broken down into individual teams/squads/vehicles. The number of markers in play varies by scenario. The scenarios vary from short company- and battalion-size engagements, to major multi-hour battles with several brigades or regiments on each side.

TacOps may be played solitaire against an OPFOR computer opponent, or between two players on one or two computers. Play between two computers may be accomplished by using a network, by exchanging small files via disk, by direct modem connection, by mail, or by electronic mail. TacOps is played in turns. Each turn consists of two phases: an orders phase and a combat phase. Each phase occurs simultaneously for both players. In the orders phase, players give orders to their units using buttons in windows and by tracing the intended movement of their units with mouse clicks on the screen. Once all orders have been given, the combat phase begins. During the combat phase, units of both forces (under computer control) simultaneously carry out their orders for movement and combat in four fifteen-second pulses. Players can only observe during the combat phase; they cannot give or change orders until the next orders phase.

In TacOps players are commanders, not gunners. Their control of weapons fire is limited to positioning their units with movement and disposition orders, setting minimum or maximum engagement ranges, and designating priority targets.





**Figure 1: Screen capture from TacOps displaying an OPFOR Defence, which is a Motorized Rifle Battalion (BTR-80) with additional armour positioned to block a Canadian Armoured Battle Group that will be advancing from the East.**

The figure above is a TacOps screen capture from a lesson on intelligence training taught at the Canadian Forces School of Intelligence and Security (CFSIS).<sup>10</sup> The scenario displays an OPFOR Defence, which is a Motorized Rifle Battalion (BTR-80), with additional armour positioned to block a Canadian Armoured Battle Group that will be advancing from the East. TacOps is used by CFSIS in this scenario to highlight the importance of properly identifying the intelligence problem and requirements. Students are required to recognize combat indicators, and analyze the developing situation.

#### WHO ELSE IS USING TACOPS?

The New Zealand Army and the US Marine Corps are using TacOps. In Canada, besides CFSIS, it is being formally used by the Directorate of

Operational Research (Joint & Land) as the exercise driver for the Jamaican Junior Command and Staff College during the tactical phase of the course.<sup>11</sup> Informally, it has been (and is being) used by a number of other CF and LF training establishments.

#### PROPOSED USES FOR TACOPS

TacOps is being purchased to complement JANUS as an inexpensive PC-based (as low as 486 platforms) simulation, which would provide individuals and units, of both the Regular and Reserve Force, with a tool to support their unit and sub-unit training. The cost for a Canadian version of TacOps is \$20 000 US. This cost includes an unlimited site license, updated Order of Battle (ORBAT), maps of major Canadian training areas, and provision of both an English and

French version. Proposed uses for TacOps include:

- ✦ a demonstration tool used by classroom instructors to highlight teaching points related to tactical training;
- ✦ an exercise tool to observe the consequences of tactical planning and decision-making;
- ✦ a CPX driver to replace the old fashioned tabletop board games;
- ✦ a tool to prepare units for JANUS training;
- ✦ a tool to rehearse seasonal exercises on local area training maps (incorporated into TacOps) prior to deployment; and
- ✦ a teaching aid that will encourage individual soldiers and officers to



apply and analyze tactical decisions in a self-paced, interactive, stimulating, continuous learning environment.

### POTENTIAL CRITICISMS OF TACOPS

Potential criticisms of desktop simulations and, in particular, TacOps, are as follows:

- ✦ the LF already has a superior CPX simulator, namely JANUS;
- ✦ there are limitations to TacOps; specifically, the display of terrain and elevation; and
- ✦ it is inherently dangerous to allow “games” to teach doctrine.

The intent of TacOps is not to replace JANUS, but to complement it by providing a supplemental tool that can be run on any PC. There are noted limitations related to terrain and elevation: TacOps is not designed to simulate the real world, but rather display a copy of a paper map. Likewise, TacOps is not designed as a high-end graphics “game”; rather, it is as a simulation that shows the consequences of tactical panning decisions (i.e., it is a procedural and process simulation). The TacOps programmer has explored the concept

of adding a 3-D graphics engine to TacOps (TacOps 98). However, that experiment has been dropped because it became obvious that it would be too expensive to produce. In short, TacOps is designed, not for the “gamer,” but for the serious student of tactics.

The young soldiers and officers in the Army are products of the Nintendo generation. Computer games and simulations are part of the modern soldier’s culture. This interest and affinity should be cultivated and exploited at the lowest level in order to inculcate the tactics and doctrine of a profession. TacOps and JANUS do not have in-built tactics and doctrine; in both cases they rely on the exercise writers and participants to provide them from their own collective knowledge and experiences. The Army has the necessary manuals. Judicious application of tactics and doctrine by players of both TacOps and JANUS produces better results.

### WHEN WILL THE CANADIAN VERSION BE AVAILABLE?

The final version of the Canadian version of TacOps is expected in the July timeframe, assuming there are no difficulties with the updating of the ORBAT or translation. The initial

distribution of the program will be on the Army Lessons Learned Warehouse Version 10, which is scheduled for release in the August timeframe.

### CONCLUSION

Simulation is a tremendously effective instructional strategy because it allows learners to “learn by doing.” Today’s students are technologically literate, and are used to being in control of the information that they receive, whether through a remote control, joystick or computer mouse. The instructional strategies we choose to provide for their learning should reflect their ability and affinity with technology. We should aspire to exploit technology to its maximum potential in order to provide them with realistic environments that actively engage and hold their attention so that they can learn through experience. Affordable desktop computer simulations, like TacOps, support the Army Simulation Strategy by providing an effective and efficient delivery medium that provides students with simulated learning scenarios and environments.



## ENDNOTES

1 N. Negroponte, *Being digital*, (New York: Random House Inc, 1995), p. 199.

2 An excellent book that explores, in depth, the possibilities of using simulations to support problem-based learning in authentic environments is R.C. Shanck and C. Cleary, *Engines for Education*, (Hillsdale, NJ: Lawrence Erlbaum Associates, 1995).

3 J. Silver, “Desktop Revolution—The pace is picking up for training based on the personal computer,” *Military Training Technology*, 3, 6 (1998), pp. 26-30.

4 The following paragraphs on simulation in Canada’s Army have been adapted from source material provided by Major Brent Beardsley, who is the desk officer responsible for the Army simulation policy at Directorate of Army Training.

5 There are many sources available that discuss the premise that active learning is a critical component for successful learning. A specific reference is O. Geban, P. Askar, and I. Ozkan, “Effects of Computer Simulations and Problem-Solving Approaches on High School Students,” *Journal of Educational Research*, 86, 2 (1992), pp. 5-10. A seminal reference on designing instructional events to support active learning is A.J. Romiszowski, *Designing Instructional Systems*.

*Decision making in courseware planning and curriculum design* (New York: Kogan Page, 1981).

6 T. Jong, “Learning and Instruction with Computer Simulations,” *Education & Computing*, 6, 3 (1991), pp. 217-229.

7 S.M. Alessi, and S.R. Trollop, *Computer Based Instruction: Methods and Development* (New York, NY: Prentice-Hall, 1995).

8 Specific sources are R. Fieffer and L. Allender, *It’s Not How Multi The Media, It’s How The Media is Used* (ERIC Document: ED, 1994), pp. 388, 243; J.J.A. Van Berkum and T. Jong, “Instructional Environments for Simulations,” *Education & Computing*, 6, 3 (1991), pp. 305-358.

9 S.M. Alessi and S.R. Trollop, *Computer Based Instruction: Methods and Development*. (New York, NY: Prentice-Hall, 1985).

10 CFSIS material was kindly provided by Captain Mike Beauvais, the Intelligence Training Platoon Commander.

11 Major Jim Furnivall of DOR (J&L) deserves significant credit for his initiative in using TacOps to support Army Training, and for his contribution to the business case analysis that resulted in the acquisition of a Canadian version of TacOps.

## MANOEUVRE WARFARE AND LEADING FROM THE FRONT

Colonel Walter Semianiw, CD

A key tenet of the theory of manoeuvre warfare is that commanders should lead from the front. By locating themselves forward, commanders have traditionally maximized their ability to exploit tactical opportunities, and thus achieve operational and strategic objectives.<sup>1</sup> Frontline leadership has also proven to be an effective means of removing and lifting (if only for brief periods) Clausewitz' friction and fog of war.<sup>2</sup> The German army operations during the Battle for France and the Low Countries in 1940 bear witness to these assertions, demonstrating the principle that tactical opportunities may be best exploited when commanders lead from the front.

As noted by military theorist Robert Doughty, "no other military operation has had a greater influence over our perceptions of warfare in this century than the 1940 campaign in which the Germans defeated the French."<sup>3</sup> Indeed, the Battle for France and the Low Countries (a campaign in which French and Allied Forces were decisively beaten through the effective use of manoeuvre and speed) has been cited by contemporary military theorists as a classic example of manoeuvre warfare,<sup>4</sup> an example which provides some insight into the nature and shape of warfare in the future.<sup>5</sup> Accordingly, an examination of the Battle for France in 1940, and in particular the exploits of General Heinz Guderian's 19th Panzer Corps, reveals a number of insights into the benefits of assuming tactical command at the front, as well as the risks that are associated with such an approach to command and control.

Throughout his career Guderian demanded that his subordinate commanders lead from the front. He realized that in doing so the tempo of the decision-making cycle could be significantly accelerated.<sup>6</sup> Instead of having to wait for information from headquarters to filter its way down through the sometimes lengthy chain-of-command, his commanders could make and execute on-the-spot decisions.<sup>7</sup> For Guderian, any acceleration of the decision-making cycle resulted in a commensurate

*A piece of spaghetti like a military unit must be led from the front.*

**General G.S. Patton Jr.**

acceleration of the operational tempo.<sup>8</sup> Furthermore, by being forward, commanders could also form personal impressions of the battle and gain a feel for the situation.<sup>9</sup> As outlined in 1936 in the *Truppenfuhrung* [Command of Troops], the German army considered this to be a vital element of successful command.<sup>10</sup> The manual notes that "during encounters with the enemy, seeing for oneself is best."<sup>11</sup>

Closely tied to this approach was Guderian's conviction that his subordinates be trained and able to make quick estimates of the situation, and to draw appropriate conclusions from such estimates.<sup>12</sup> Accordingly, he conducted numerous staff rides to

ensure that his subordinate commanders were adequately trained in this skill. If they were, Guderian believed that the speed of operations would be maintained through a timely and efficient decision-making cycle. In fact, Guderian considered the ability to make timely and effective decisions to be part and parcel of leading from the front, an essential part of mobile warfare as a whole. As noted by Colonel Goutard in his work *The Battle of France, 1940*, this approach to command and control allowed the German army to stay one step ahead of the French and Allied forces in its advance to the Channel Coast in the summer of 1940.<sup>13</sup>

The approach of leading from the front, of making rapid and effective decisions, is readily apparent when one examines the exploits of XIXth Panzer Corps in its dash to Noyelles on the Atlantic coast in 1940.<sup>14</sup> The repeated references to the forward location of company, battalion, brigade, divisional, and (in the case of Guderian) the corps commander emphasize how ingrained this philosophy was in certain parts of the German army during the Battle for France and the Low Countries.<sup>15</sup> We must, however, note that the ideal location of commanders in German *Wehrmacht* doctrine was more precise than "the front": they led from the *Schwerpunkt* [point of main effort].<sup>16</sup>

The practice in the German *Wehrmacht* was for commanders to designate a *Schwerpunkt* for each operation, a procedure which can be traced back to the Greek and Roman armies.<sup>17</sup> Yet, being cognizant that the

friction and the fog of war could force a change to the location of the *Schwerpunkt*, German commanders were trained and prepared to move to wherever the point of main effort shifted on the battlefield.<sup>18</sup> To allow for such shifts in effort, sufficient reserves and a strong unified command would be organized. The reserves would only be committed to reinforce success, rather than failure (a philosophy that was also practised by the Soviet Army during the Second World War<sup>19</sup>). The actions of the commander of the 1st Infantry Brigade of the 1st Panzer Division (the point of main effort of the corps) on the first day of the advance of XIXth Panzer Corps to the Channel Coast highlights the benefits of leading from the *Schwerpunkt*, and making timely, effective decisions.<sup>20</sup> By being forward at the *Schwerpunkt*, the brigade commander observed the construction of an obstacle by the Belgian *Chasseurs* who had been tasked to conduct a delaying action against the advancing Germans. The brigade commander quickly organized an ad hoc detachment to ford the Our river, conduct route reconnaissance, and locate obstacles along the division's intended route.<sup>21</sup> Once a barrier had been located, the forward detachment would either seize and remove the barrier, or locate a detour around it, thus maintaining the tempo of operations.<sup>22</sup> Thus, by being forward, the brigade commander could respond more quickly to changes in the tactical situation at the *Schwerpunkt* than if he had been back at his headquarters. Furthermore, by being forward, his actions had a greater impact on the outcome of the battle because he brought other subordinates to this point on the battlefield and focused their actions on the "point of main effort."<sup>23</sup> In this case, as observed by Martin van Creveld, the function of command became a force multiplier.<sup>24</sup>

The tactical situation was further exploited by the Commander of the 1st

Infantry Regiment of the 1st Infantry Brigade.<sup>25</sup> After crossing the Our river and advancing to the Belgium border on 10 May, Lieutenant-Colonel Balck realized that a hole had been breached in the Belgian border defences. He quickly moved to the *Schwerpunkt*, conducted an estimate of the situation, and acted before the remainder of the division arrived.<sup>26</sup> By 1030 hours, lead elements of the German advance guard had breached the main defences of the Belgium frontier, and were advancing into the depths of the Belgium border defences only six hours after the commencement of the advance of the XIXth Panzer Corps from the German frontier. By leading from the front, Balck had the opportunity to personally observe that his formation was confronted by weak enemy resistance, and acted accordingly. Again, as noted by Colonel Goutard, by being forward and exploiting weaknesses in the French defences, German commanders could react more quickly to changes in the tactical situation throughout their advance than the French army could reorganize its defences. The result was a collapse of the French defences in depth. Arguably, exploitation of tactical opportunities allowed the Germans to obtain their operational and finally strategic objectives.<sup>27</sup>

By leading from the front, German commanders could also personally resolve any conflicts that arose, and consult with subordinates. German commanders would, in most cases, personally intervene to sort-out any difficulties which had operational impact. The case of General Guderian and General Kempf meeting at the Market Place of Montcornet on 13 May to resolve the coordinates of divisional boundaries is only one example of how the friction and the fog of war can be removed when commanders lead from the front.<sup>28</sup> By acting on-the-spot, both commanders ensured that the freedom of action and the operational tempo of

the corps were maintained. Had their headquarters staffs been called upon to resolve the issue, operational delays would have inevitably occurred.

Conversely, as demonstrated by the actions of the French on 13 May 1940, tactical commanders who do not lead from the front will, in most cases, be out-of-touch with the battle. On 13 May, the Germans began an unsupported assault crossing of the Meuse River. At this point, the Germans were extremely vulnerable—so vulnerable that some scholars would argue that an attack at this point by the French could have changed the face and the outcome of the campaign. Nevertheless, because the French commanders were located in the rear, they lacked a clear and current picture of the battle. Likewise, the information they received was insufficient to keep-up with the rapid pace of the fighting.<sup>29</sup> In fine, the French missed an opportunity.

Although the length of this paper precludes an in-depth examination of the exploits of Guderian's XIXth Panzer Corps, the examples which have been provided underline the conviction that tactical opportunities are best exploited when commanders lead not only from the front, but also from the point of main effort. Furthermore, this brief historical review emphasizes the need for commanders to be trained in making timely and effective decisions in order that they be able to exploit the chaos of battle and remain within the enemy's decision-making cycle. Yet, to attribute this tenet of manoeuvre warfare to Guderian would be as erroneous as attributing the birth of the *Blitzkrieg* to him. As noted by General Guderian in his seminal work *Panzer Leader*, contemporaneous German training manuals demanded that commanders be as far forward as possible.<sup>30</sup> In addition, the after-action and lessons-learned reports from the Polish campaign of 1939 revealed that German commanders

were not located as far forward as they should have been, and therefore could not exploit tactical opportunities to their fullest.<sup>31</sup> Consequently, in the period between the Polish and French campaigns, extensive training was conducted of all Category I units in the German army to correct this and many other deficiencies that were noted during the invasion of Poland.<sup>32</sup>

In fact, the practice of leading from the front can be found much further back in the history of the German army. This approach to command and control is inextricably linked to the birth in the Prussian Army of “*Führung nach Directive*,”<sup>33</sup> or what became termed by the German army after the Second World War as “*Auftragstaktik*.”<sup>34</sup> It was also coupled to a conviction in the German army of the First and Second World Wars that confusion is the normal state of the battlefield. Leading from the front and the use of “*Auftragstaktik*” were viewed by the German *Wehrmacht* as tools to remove and to exploit, if only momentarily, the confusion of battle.<sup>35</sup> The fact that chiefs of staffs had the authority to make decisions in the absence of their commanders was also instrumental to the success of this approach.<sup>36</sup> By delegating authority, German commanders were able to remain forward as much as possible, rather than being tied to their headquarters in the rear.<sup>37</sup>

Notwithstanding these advantages, there are a number of disadvantages that must be taken into consideration if and when one adopts such an approach to command and control. The most evident of these is that commanders can lose contact with their headquarters (this occurred on a number of occasions during the advance of XIXth Panzer Corps towards the Channel coast).<sup>38</sup> Meanwhile, the need for commanders to be located at the *Schwerpunkt* can not be over-stated, particularly if the point of main effort is shifted. Accordingly, commanders must be prepared to move if the point of main effort is redesignated. Yet, as noted by French MacLean, the movement of German commanders on the battlefield during the Second World War proved to be very dangerous, accounting for a large number of casualties among German commanders.<sup>39</sup> Indeed, leading from the front is not a risk-free approach to command and control. The German *Wehrmacht* experienced unusually high casualty rates of their field commanders as a consequence of using this approach.<sup>40</sup> In fact, a review of various historical sources reveals that the casualty rates of

leaders in armed forces where an approach of leading from the front is adopted can be as high as twenty percent.<sup>41</sup>

## CONCLUSION

In the final analysis, an examination of the Battle for France and the Low Countries in 1940 reveals that when commanders lead from the front, the possibility of obtaining operational objectives is significantly enhanced.<sup>42</sup> For the *Wehrmacht*, however, commanders led not only from the front, but also from the point of main effort. By doing so, German commanders ensured that their actions had the most immediate and pronounced impact on the face of battle at the operational and strategic levels of war. For German commanders, particularly those in the Panzer divisions, frontline leadership was also linked to an ability to make timely and decisive decisions. In a large measure, such decision making was facilitated by the use of *Auftragstaktik* and by a command and control system that did not tie commanders to their headquarters. In the end, the success of XIXth Panzer Corps in its 1940 dash to the Channel coast can be largely attributed to the practice of commanders leading from the front.



## About the Author . . .

Colonel Walter Semmaniw holds a BA from the University of Western Ontario. His service includes several tours with Princess Patricia's Canadian Light Infantry, including command of the 1<sup>st</sup> Battalion. His interests include the development and evolution of mechanized warfare and the “*Revolution in Military Affairs*.” Colonel Semmaniw is currently completing a Masters of War Studies degree at The Royal Military College of Canada in Kingston.

## ENDNOTES

- 1 For a historical review of the location from where commanders have led in the past see Martin van Creveld, *Command in War* (London: Harvard University Press, 1985).
- 2 For a detailed explanation of the philosophy of “the friction and the fog of war,” see Karl von Clausewitz, *On War*, trans. Michael Howard, ed. Peter Paret (Princeton: Princeton University Press, 1976).
- 3 Robert A. Doughty, *The Myth of the Blitzkrieg* (Carlisle Barracks, Pennsylvania: US Army War College, 1998), p. 1.
- 4 See William S. Lind, *The Maneuver Warfare Handbook* (Boulder, Colorado: 1985) and Robert Leonhard, *The Art of Maneuver* (Boulder, Colorado: 1990).
- 5 Jeffrey Cooper, *Another View of the Revolution in Military Affairs* (Carlisle Barracks, Pennsylvania: US Army War College, 1994) and Steven Metz and James Kievit, *Strategy and the Revolution in Military*

*Affairs: From theory to Policy* (Carlisle Barracks, Pennsylvania: US Army War College, 1995).

6 See Heinz Guderian, *Panzer Leader*, trans. Constantine Fitzgibbons (London, England: Michael Joseph, 1952) and Kenneth Macksey, *Guderian, Panzer General* (London, England: Macdonald and Jane's, 1975).

7 Ibid.

8 Florian K. Rothburst, *Guderian's XIXth Panzer Corps and The Battle of France* (New York, New York: Praeger, 1990), p. 53.

9 Guderian, *Panzer Leader*, p. 227.

10 United States Government Printing Office, *Handbook on German Military Forces* (Washington, D.C.: 1945) p. IV-1. As noted in this overview of the German *Wehrmacht*, the emphasis in the German army was that commanders should be well forward with units not only for the purpose of facilitating communications, but also to provide a salutary effect on the troops.

11 French MacLean goes on to note that the philosophy of commanding from the front within the German army was strongly shaped during World War I. French L. MacLean, "German General Officer Casualties: Lessons for Future War," *Military Review* (April 1990), pp. 45-56.

12 Guderian, *Panzer Leader*, p. 39.

13 A. Goutard, *The Battle of France 1940*, trans. A.R.P. Burgess (London, England: Frederick Muller, 1958), p. 20.

14 For a concise overview of the 1940 campaign see Bernd W. Englert, "Failure in Northern France, May 1940," *Military Review* (November 1983), pp. 2-11.

15 For a detailed account of the advance of 19th Panzer Corps to the Channel Coast see Rothburst, *Guderian's XIXth Panzer Corps and The Battle of France* and William L. Shirer, *The Collapse of the Third Republic: An Inquiry into the Fall of France in 1940* (New York, New York: Simon and Shuster, 1969).

16 The term *Schwerpunkt* 'point of main effort' is taken from United States, *Handbook on German Military Systems*, p. IV-5.

17 In the Greek and Roman armies, commanders would, as part of an attack, designate a decisive wing. However, in these cases, due to their limited mobility, commanders were usually committed to remain with that wing regardless of what occurred elsewhere on the battlefield. See Crevel, *Command in War*.

18 Clayton R. Newell, "Fog and Friction: Challenges to Command and Control," *Military Review* (August 1987): pp. 18-26. Also United States, *Handbook of the German Military*, pp. VI-5 and VI-6.

19 Ibid.

20 Rothburst, *Guderian's XIXth Panzer Corps and The Battle for France*, p. 53.

21 Ibid.

22 Ibid.

23 Commanders down to battalion level in Guderian's Panzer corps understood the operational concept in 1940, and thus were able to take full advantage of unexpected circumstances. Rothburst, *Guderian's XIXth Panzer Corps and the Battle for France*, p. 93.

24 Crevel, *Command in War*, pp. 7-8.

25 Rothburst, *Guderian's XIXth Panzer Corps and the Battle for France*, p. 54.

26 Ibid.

27 Goutard, *The Battle for France*, p. 143.

28 Alister Horne, *To Lose a Battle: France 1940* (Toronto, Canada: Little, Brown and Company, 1969), p.402.

29 Peter R. Mansoor, "The Second Battle of Sedan: May 1940," *Military Review* (June 1988), pp. 70-71.

30 Guderian, *Panzer Leader*, p.66.

31 S.J. Lewis, *Forgotten Legions: German Infantry Policy 1918-1941* (New York: Praeger, 1985), p. 93.

32 Rothburst, *Guderian's XIXth Panzer Corps and The Battle for France*, pp. 21-22. Also S.J. Lewis, *Forgotten Legions*, pp. 96-97 and S.J. Lewis, "Reflections On German Military Reform," *Military Review* (August 1988), pp. 60-69.

33 Martin Samuels, *Doctrine and Dogma: German and Infantry Tactics in the First World War* (New York: Greenwood Press, 1992), pp. 87-96.

34 Ibid. The use of *Auftragstaktik* was facilitated in the German army by a mutual understanding among leaders and an understanding based on common doctrine. Aware of both a commander's intention and the common doctrine, subordinate leaders could execute that intention in accordance with that doctrine. Jonathan M. House, *Towards Combined Arms Warfare: A Survey of 20th Century Tactics, Doctrine, and Organization* (Fort Leavenworth, Kansas: US Army Command and General Staff College, 1984), p. 53.

35 Van Crevel, *Command in War*, pp. 168-184.

36 The practice in the German army was to leave the chief of staff to run the headquarters as the commander was free to move about on the battlefield. The commander would return to his headquarters as required to ensure that the staff had sufficient guidance to plan for future operations. See United States, *Handbook on German Military Forces*.

37 Nevertheless, German tactical headquarters were located as far forward as possible. Richard F. Timmons, "Lessons from the Past for NATO," *Parameters* (November 1988), p. 5.

38 See Rothburst, *Guderian's XIXth Panzer Corps and The Battle for France*.

39 Most casualties were from enemy aircraft. MacLean, "German General Officer Casualties in World War II: Lessons for Future War," p. 50.

40 Lewis, *Forgotten Legions*, p. 135. Also see MacLean, "German General Officer Casualties in World War II: Lessons for Future War."

41 Reuven Gal, *A Portrait of the Israeli Soldier* (New York, New York: Greenwood Press, 1986), p. 135.

42 Crevel, *Command in War*, pp. 43-45. Also see, Dennis J. Reimer, "Lead up Front and Give a Damn," *Military Review* (May/June 1996), p. 89.

## BURN THE WITCH

### A CASE FOR SPECIAL OPERATIONS FORCES

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Conventional military minds spurn the distinct, special or unique. Their conservative outlook conveys an apparent contentment with mediocrity and the status quo. Brigadier-General William Mitchell noted that “The great trouble with starting anything new is to break away from the conservative policy of those who have gone before.”<sup>1</sup> To exacerbate this dilemma, the mere mention of elitism makes many in our egalitarian and hyper-politically-correct society uncomfortable. Any suggestion that a unit is somehow “elite” or “special” frequently induces outside protest or even hostility.

The Canadian military establishment is not unique in its disdain for Special Operations Forces (SOF), but it does provide an excellent example of an institution that cloaks itself in the mantle of “multi-purpose combat forces,” to the exclusion of any other type of organization. Reliance on a core of generic “multi-purpose combat forces” unquestionably renders a perception of economy and flexibility. However, dogmatic adherence to the concept acts as a “fire-break” to innovation and progressive force development. Dr. Jack Granatstein noted that, within the Canadian context, “every new idea is staffed to death and aborted, and openness to ideas is killed at birth.”<sup>2</sup>

The importance of doctrine is indisputable, but it must not enslave institutional thinking. Doctrine must not only ensure tolerance to new ideas, but also foster an environment conducive to their generation and growth. Former US Army Chief of Staff, General Gordon Sullivan, observed that “doctrine is not what to think but how to think.”<sup>3</sup>

Unfortunately, this has not always been the case. Institutional bias against SOF-type organizations has always existed. Furthermore, it has often impeded legitimate consideration and discussion of the importance and utility of specialized and unique troops. This is a shortcoming which presently exists. We have become trapped by the relevancy of our own careers and experience. There is a reluctance to consider the possibility that the traditional concepts of the Army (specifically its organization and structure) may no longer be entirely relevant. Shelter is sought in generic nomenclature such as “multi-purpose combat forces.” Such nomenclature acts as a shield to that which is feared most—change.

What is important for future preparedness is not how we have traditionally met our country’s defence requirements, but rather how we must be structured and what we will need to meet the nation’s challenges of tomorrow and beyond. It is within this context that SOF must be examined because they provide a viable capability suited to meet our future security requirements. Despite entrenched institutional criticism and resistance, SOF-type organizations yield an array of skills and advantages which make them an important component of the nation’s defence force of tomorrow.

Prior to discussing the advantages or disadvantages of SOF organizations, it is important to define exactly what is meant by “SOF.” Ignorance or misconceptions of this concept are largely to blame for the existence of the often belligerent debate that surrounds it. The vast majority of literature concerning SOF operations or

organizations fails to define what, in fact, comprises special operations, special operations forces, special forces, or elite units. Frequently, these terms are used interchangeably and without distinction.

The confusion is readily apparent. Colonel Aaron Bank battled with the vagaries of the concept of SOF operations and organizations in his struggle to establish the “Green Berets.” He noted that “Special Operations,” as it was interpreted by others, was a catch-all term that “included cold-weather operations; mountain warfare; and amphibious, airborne, Ranger, and commando operations.”<sup>4</sup> Bank tersely observed that it was “Too damn broad and all inclusive!”<sup>5</sup> Lieutenant-General William E. Yarbrough professed that “special warfare is an esoteric art unto itself.”<sup>6</sup> The strategist Colin Gray added to the expansive definition when he advanced that “in order to secure a sufficiently holistic understanding of special operations, it is useful to think of them in terms of three things: a state of mind; forces; and a mission.”<sup>7</sup>

However, to many others Special Operations and the forces tasked with their execution represented a very limited scope. General Collins, the US Army Chief of Staff in 1951, was representative of a common military perception. He defined Special Forces Operations as “those carried on within or behind the enemy’s lines.”<sup>8</sup> Numerous academics and scholars espoused this perception. A study of commando (special) operations conducted from 1939 to 1980 elicited the observation that special operations were “self-contained acts of war mounted by self-sufficient forces

operating within hostile territory.”<sup>9</sup> Dr. Terry White echoed these sentiments, affirming that “Special Forces are personnel who receive specialized training to execute tasks behind the enemy’s lines in support of conventional military operations or a counter-insurgency campaign.”<sup>10</sup>

Further complicating such erroneous perceptions was yet another school of thought that described the realm of the SOF as the domain of manifestly elite units. The concept of elitism was central to Eliot Cohen’s depiction of SOF activities and membership in his seminal work *Commandos and Politicians*.<sup>11</sup> Numerous other military analysts, researchers, and scholars have taken a similar approach. It was recognized that SOF individuals and units, by virtue of the quality of personnel, training or mission, were not representative of their conventional brethren. Consequently, SOF organizations were automatically granted elite status.<sup>12</sup>

For the purpose of this paper, SOF are defined as those organizations which are rapidly deployable in time of peace or war, and which contribute special skills and unique capabilities beyond the abilities of conventional units.<sup>13</sup> SOF units are not necessarily elite, although it must be recognized that the average member will normally demonstrate higher levels of experience, fitness, motivation, and self-reliance.<sup>14</sup> In essence, the SOF soldier is “defined by his role and his training.”<sup>15</sup>

There may be little historical agreement on the definition of SOF; however, there is overwhelming institutional consensus on the question of resistance to its existence. Cohen noted that “almost all of the elite units we have studied faced considerable bureaucratic hostility—enmity translated into effective harassment.”<sup>16</sup> Colonel Aaron Bank captured the essence of the animosity against SOF when he remarked, “To the orthodox, traditional soldier, it [unconventional

warfare (UW)] was something slimy, underhanded, illegal, and ungentlemanly.”<sup>17</sup>

This sentiment was by no means uncommon. World War II witnessed a distinct aversion to SOF by military commanders. Field-Marshal Sir William Slim was representative of the traditional military mind set when he asserted, “Private armies are expensive, wasteful, and unnecessary.”<sup>18</sup> His disdain for SOFs and what they represented was clearly evident in the profile he painted. He stated that these “racketeers” were in essence of two kinds:

... those whose acquaintance with war was confined to large non-fighting staffs where they had had time and opportunity to develop their theories, and tough, cheerful fellows who might be first-class landed on a beach at night with orders to scupper a sentry-post, but whose experience was about the range of a tommy-gun... Few of them had anything really new to say, and the few that had, usually forgot that a new idea should have something to recommend it besides just breaking up normal organization.<sup>19</sup>

The institutional antipathy towards SOF flourished as the war drew to a close. As hostilities neared completion SOF organizations were quickly disbanded or, at best, severely curtailed.

Widespread antagonism against SOF continued to flourish in the post-war period. In 1952, Colonel Bank attributed his initial difficulty in recruiting for the “Green Berets” to the “less than enthusiastic Army-wide support for the program.”<sup>20</sup> His experience was not unique. The rejuvenated Special Air Services (SAS) also found itself short of recruits because “the Regiment’s reputation stood so low that Commanding Officers of other units were making it difficult for their people to go on selection course.”<sup>21</sup> This attitude was also

mirrored in the attempts to radically reform elements of the French Foreign Legion (2nd REP) in 1963, into a rapid deployable SOF-type unit. The unofficial unit historian noted, “This was a revolutionary concept at the time, and not one to please desk bound conservatives in the French military. To these officers the word ‘special’ conjured up nonconforming, rogue units.”<sup>22</sup> Even in the depths of Africa, torn by internal strife and rampant with insurgency, apathy towards new ideas lingered. Lieutenant-Colonel Ron Reid Daly, in his efforts to establish the Selous Scouts in the former Rhodesia, observed, “I began to get the feeling of a distinct resistance block against me personally, and the scheme as a whole.”<sup>23</sup>

Antipathy towards SOF has been particularly entrenched. As recently as 1983, the Secretary of the Army admitted that “Over the years in the United States there has been resistance among leaders of conventional forces towards unconventional methods.”<sup>24</sup> Four years later, at the activation ceremony of the US Special Operations Command, the Chairman of the Joint Chiefs of Staff beseeched those assembled to “break down the wall that has more or less come between special operation forces and other parts of our military.”<sup>25</sup>

Institutional resistance to SOF has historically been so virulent that the success of organizing a special unit largely rested on the support and protection one could garnish from powerful sponsors. Prime Minister Churchill personally pushed for the development of “Leopards” (better known as Commandos), which he described as “specially trained troops of the hunter class, who can develop a reign of terror... on the ‘butcher and bolt policy’.”<sup>26</sup> In addition, he also pressed for a corps of five thousand paratroops. The Army’s immediate and deeply rooted resistance to his direction prompted Churchill to suggest to Anthony Eden, the British Secretary of



State for War, that an example should be made of “one or two” of the reluctant officers. He also prodded continually for progress reports that would indicate head-way was being made.<sup>27</sup>

The American example is analogous. The ability of the Rangers to initially raise sufficient numbers needed to establish their new unit was credited to the specific direction given to Army Commanders by US Army Chief of Staff General George C. Marshall.<sup>28</sup> Similarly, instrumental to the existence of the Office of Strategic Services (OSS) was General Donovan’s close connection to President Roosevelt. The President’s death in 1945 sealed the fate of that organization. The OSS was ordered to be disbanded by October of that year.<sup>29</sup> General McClure’s “special pipeline to the White House” during the immediate post-war period was critical to the efforts in organising the US Special Forces.<sup>30</sup> In later years, President Kennedy’s interest and vigorous support catapulted their fortunes. His sponsorship caused such rancour in the Army that the Special Forces were dubbed “Jacqueline Kennedy’s Own Rifles.”<sup>31</sup>

Antagonism to the concept of SOF was unavoidable, despite the support of high level military and political sponsorship. Dissenting commanders proffered a litany of criticisms in an effort to denigrate the unconventional approach to war. The primary criticism was that special organizations were no better than “poachers,” who stripped away the best men from conventional units. During the Second World War, the Chief of the Imperial General Staff, Field Marshal Sir Allan Brooke, never agreed with Churchill’s Special Forces policy for this very reason. He felt that it was “a dangerous drain on the quality of an infantry battalion.”<sup>32</sup> Slim reinforced this viewpoint, noting that special units “were usually formed by attracting the best men from normal units,” with the result of degrading the

quality of the rest of the Army, especially that of the infantry.<sup>33</sup> Philip Warner encapsulated the problematic nature of SOF recruitment by stating, “invariably the men volunteering are the most enterprising, energetic and least dispensable.”<sup>34</sup> To exacerbate this problem, SOF units often utilize a higher proportion of senior non-commissioned officers (NCOs). This drain of senior NCOs serves to reinforce the notion that the overall quality of the army is degraded through SOF recruitment.<sup>35</sup> Such a “skimming effect” is further aggravated by the perception that negative consequences are inevitably in store for those who fail to pass the high standards imposed during the SOF selection process. Alan Brooke and Slim were two of many who were convinced that those rejected had their confidence undermined by failure.<sup>36</sup> Moreover, the nature of these highly selective units created an impression that everyone else was second-best. As one former SAS member noted, “elitism is counter-productive, it alienates you from other people.”<sup>37</sup>

The condemnation of SOF does not rest solely on the issue of purloined manpower. Another general complaint, expressed by Field Marshal Slim, was that “the equipment of these special units was more generous than that of normal formations.”<sup>38</sup> General Fred Franks’ comments regarding the expansion of American SOF during 1980 is an indication that the equipment issue is not dead. Franks noted, “as an elite force they [the American Rangers] were given ample training budgets, stable personnel policies (less rotation in and out than normal units), their pick of volunteers, and leaders and commanders who were already experienced.”<sup>39</sup> This type of special status prompted non-SOF commanders to continually complain. The gist of the criticism was that the investment of valuable, highly-skilled, and scarce manpower, combined with the lavish consumption of material resources, failed to provide a worthwhile return for

the expenditure. The efforts of special units were likened to “breaking windows by throwing guineas (gold coins) at them.”<sup>40</sup>

The perceived wastefulness of SOF organizations became a particularly bitter point of contention during the Second World War. Commanders felt that there were insufficient resources available to allow special units, which represented such a large manpower pool, to be idle between missions. Slim captured the essence of the argument when he wrote “they can be employed actively for only restricted periods. Then they demand to be taken out of the battle to recuperate while normal formations are expected to have no such limits to their employment.”<sup>41</sup>

Paradoxically, SOF continued to provoke the ire of their critics even when they were employed. The inordinately high ratio of casualties they suffered was seen as further proof of their wastefulness. It is generally accepted that SOF suffered a higher percentage of casualties even though they were normally employed for less time in actual combat than other forces.<sup>42</sup> Cohen noted that in the final analysis the British Commandos suffered a significantly higher wartime mortality rate than the rest of the army.<sup>43</sup> The Australian Commando experience was similar: they incurred a wartime casualty rate of 34%.<sup>44</sup> Of equal magnitude were the high losses incurred by airborne forces: during World War II, over 30% of all American airborne personnel became casualties. This compares to only 10% among regular infantry formations.<sup>45</sup>

Manpower wastage and consumption of scarce resources created resistance to SOF, but of equal impact was the perceived arrogance and lack of discipline within the subject organizations. To those on the outside, those units that were distinctly different from the conventional mould, whether defined as “elite,” “special,” or “unique,” were distinguished as being no better than ill-disciplined rogue



outfits. They were (and may still be in some cases) accused of being a “law unto themselves.” In his studies of military culture, Charles Cotton noted, “their [elite units’] cohesive spirit is a threat to the chain of command and wider cohesion.”<sup>46</sup>

Leadership and discipline are often informal within SOF units, most evidently in the fact that norms of protocol and the emphasis placed on ceremony and deportment are relaxed. Cohen reported that “an almost universally observed characteristic of elite units is their lack of formal discipline - and sometimes a lack of substantive discipline as well. Elite units often disregard spit and polish or orders about saluting.”<sup>47</sup> General De La Billiere recalled his experience as a junior officer in the SAS: “The men, for their part, never called me ‘Sir’ unless they wanted to be rude.”<sup>48</sup> Eric Morris noted, “the LRDG [Long Range Desert Group] and other like units did offer a means of escape from those petty tediums and irritants of everyday life in the British Army. Drills, guards, fatigues and inspections were almost totally absent.”<sup>49</sup>

In addition, the highly selective nature of some SOF organizations, and the innate self-confidence born of successfully challenging difficult and hazardous training, create an aura of invincibility and an intense loyalty to what is perceived as a very exclusive group. The focus within the select organization often becomes dangerously self-orientated. Members of these “elite” or “special” units frequently adopt an outlook that treats outsiders as inferior and unworthy of respect. This phenomenon was observed by John Talbot in his study of French paratroopers. He commented, “Dimensions of the esprit para were disquieting. Their sense of independence from the rest of the army, their lack of respect for traditional forms

of discipline, their clannishness.”<sup>50</sup> Cohen reinforced this sentiment, stating, “as in most elite units, the paratroop officers were close to their men - to the point that the battalions became more like militant clans than military organizations.”<sup>51</sup>

The resistance to SOF-type organizations within the universally conservative-minded military institution has historically been both wide-spread and deep-rooted. Enmity to SOF is engendered as much by the competition for scarce resources as it is by philosophical differences in what constitutes an acceptable approach to military operations. Organizers who have tried to establish SOF units have invariably fought an uphill battle, even when high-ranked or well-positioned sponsors have been on-side. The greatest challenge has always been to get the conventionally-minded to examine, objectively, an alternative approach.

The alternative method, despite the barrage of condemnation discussed earlier, has actually proven itself to be profitable. SOF organizations have repeatedly demonstrated their merit. Of greater importance, however, is their increasingly significant contribution to operations given the changing face of conflict in the closing decade of the Twentieth Century. An examination of the multitude of capabilities that SOF organizations possess underlines their utility and value. Historically, SOF were critical in ensuring combat operations in the face of national unpreparedness and/or defeat. The British Deputy Director of Tactical Investigation in 1945 concluded, “when we are weak everywhere, forces of this nature [SOF] are the most useful, and can play a most vital part in keeping the enemy all over the world occupied.”<sup>52</sup> More recently, it has been remarked that “during those heart stopping days of August 1990, the ‘speed bumps’ of the 2nd Brigade of the 82nd Airborne Division were all

that stood between Iraq and 70 percent of the world’s known oil reserves.”<sup>53</sup>

It is the SOF characteristics of high-readiness and rapid deployability which enable them to provide the nation with this ready sword. The 1984 American White Paper on “Light Infantry Divisions” stated, “Army leadership is convinced, based on careful examination of studies which postulate the kind of world in which we will be living and the nature of conflict we can expect to face, that an important need exists for highly trained, rapidly deployable light forces.”<sup>54</sup> The end of the Cold War and the ensuing global instability reinforced the need for SOF-type organizations. Richard Cheney, a former US Secretary of Defence, remarked, “The dominant characteristic of the post Cold War world is now uncertainty. It will be increasingly difficult to foresee where crises could arise.”<sup>55</sup> In 1996, William Perry, in the same capacity, reiterated the reality and asserted, “Quick deployment of forces to a crisis decreases the likelihood that they will actually have to be used and increases chances for success if force is necessary.”<sup>56</sup>

The ability to react quickly, anywhere, anytime, however, requires enormous mobility and readiness. These are characteristics that represent yet another strength of SOF. SOF are normally capable of engaging in operations (combat or other), on short notice, without the preconditions of secure airfields, beaches, ports, or other points of entry. For example, the 82nd Airborne Division can place a reinforced parachute battalion in the air in eighteen hours, for a deployment to virtually anywhere in the world, from a “no-notice start.”<sup>57</sup> Tom Clancy aptly commented, “In a time when appearances (at least on television) are frequently more important than reality, getting there first can be as important as victory itself. Sometimes it is victory!”<sup>58</sup>

The prompt deployment of forces also affords a significant degree of deterrence. As such, the use of SOF provides an effective tool for signalling capability, resolve, and solidarity, as well as reassurance to alliance partners. It has long been realized that “the deployment of the 82nd Airborne Division during an international crisis transcends the simple act of deploying a combat unit. It takes on a global significance that symbolizes the final US political solution being applied, once [diplomatic] efforts have failed...and has come to embody national will and commitment.”<sup>59</sup>

Providing a rapid presence is of limited value unless the forces are capable of contributing to the successful outcome of the crisis. SOF can also offer more tangible support, such as long range reconnaissance, deep penetration of enemy territory, and “direct action” missions. William Shirley, the Commander-in-Chief of the British Army in North America in 1755, appropriately summarized the utility of “Special Operations Forces”:

It is absolutely necessary for his Majesty's Service, that one Company at least of Rangers should be constantly employ'd in different Parties upon Lake George and Lake Iroquois [Lake Champlain], and the Wood Creek and Lands adjacent...to make Discoveries of the proper Routes for our own Troops, procure Intelligence of the Enemy's Strength and Motions, destroy their out Magazines and Settlements, pick up small Parties of their Battoes upon the Lakes, and keep them under continual Alarm.<sup>60</sup>

Shirley's description of the merit of SOFs, (given over two hundred years ago) is as pertinent today as it was during that colonial struggle.

The continual ability “to make discoveries” makes SOF a tool of inestimable value. During World War II organizations such as the LRDG, OSS, and Phantom yielded indispensable

information not only on enemy strengths and dispositions, but also on up-to-date friendly force deployments. During the Gulf War, Allied SOF carried out a plethora of critical reconnaissance missions. As General De La Billiere accurately expressed, “no amount of electronic surveillance is as effective as a pair of eyes on the ground.”<sup>61</sup>

SOF support ensured that key highways deep in the enemy's rear were monitored for Iraqi troop movements that may have jeopardized the Coalition's wide flanking movement. They obtained soil samples needed to confirm the suitability of the intended route for heavily armoured vehicles, and they photographed key terrain features to allow commanders a preview of their future battlefield. In addition, SOF ground teams were credited with the discovery of approximately forty elusive, mobile SCUDs that were undetectable by aircraft or satellite.<sup>62</sup>

In addition to the relay of precious information, SOF are highly suited to spearhead initial assaults by “opening the door,” as was done during the US invasions of Grenada, in 1983, and Panama, six years later. SOF are also vital for the conduct of direct action missions such as air assault, ambush, attack by infiltration, raid or other short-duration strikes aimed at the enemy's decisive points. General Franks explained that SOF “would depend not so much on firepower as on stealth, infiltration, and speed of movement through difficult terrain.”<sup>63</sup>

The ability of SOF to perpetually threaten an enemy's centre of gravity and turn his strategic depth and rear areas into a “front line” is of incalculable value. The damage inflicted during these strikes causes the enemy immediate pain and long term concern. However, the greatest significance, well beyond any physical damage that can be wrought, is the psychological impact. SOF capability means an opponent must always guard against a potential

attack anywhere. Depth and distance provide no defence. As a result, scarce resources must be diverted to protect all possible vital points.<sup>64</sup>

Despite their low numbers SOF can provide decisive results. Yasotay, a Mongolian warlord in the Middle Ages, astutely noted, “When the hour of crisis comes remember that forty selected men can shake the world.” However, the SOF are not a substitute for heavy forces, and when they are used as surrogates or “shock troops” they will normally fail. They have specific capabilities and skills, but also limitations. When their combat prowess is mistaken for raw combat power, high casualties and mission failure will inevitably result. Colin Gray noted, “Conventional minds have far less difficulty appreciating the military value of ‘shock troops’ to perform unusually hazardous tasks than they do of Special Operations Forces performing non regular missions.”<sup>65</sup>

When used with discretion, the contribution of SOF is immense. Only 5000 American SOF personnel (out of a total of 540 396 US troops) deployed to Operation Desert Storm. Yet, despite General Schwartzkopf's initial reluctance to use SOF, he later singled out those forces as critical to the allied victory.<sup>66</sup>

The utility of SOF goes beyond reconnaissance and direct action type operations. They are also ideally suited for politically sensitive environments. SOF offer a wide range of unique competencies, lethal or non-lethal, that provides more options for military and political decision makers. Their smaller numbers and lack of highly visible armoured vehicle fleets make them capable of discreet or covert actions, and reduces the risks often associated with larger, more discernible force deployments. Conversely, they also are capable of high profile activities to win favourable support for a nation's initiatives.

In the post Cold War period alone, SOF have been committed to information gathering activities, direct action missions, and combat search and rescue. They have also been instrumental in humanitarian and peace operations in both the national and international arenas. Furthermore, they have assisted in nation building, foreign internal defence activities, the war to counter drug trafficking, and the battle against international terrorism. The proliferation of SOF taskings in the contemporary international situation is amply demonstrated by the most visible example, the United States. The Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict reported that "our deployments between Fiscal Years 1991 and 1992 grew by 83%."<sup>67</sup> Since then, SOF saw another threefold increase in missions. During 1997, SOF deployed to 144 countries around the world, with an average of 4760 SOF personnel deployed per week.<sup>68</sup>

The merits of SOF also venture into the spectrum of the intangible. SOF organizations provide an outlet for those who seek additional challenge, which is not readily available in conventional units. It offers a vehicle for those who wish to test themselves, both mentally and physically, by pushing their endurance and performance to extremes. Thucydides, the chronicler of the Peloponnesian Wars, wrote, "We must remember that one man is much the same as another, and that he is best who is trained in the severest school." SOF operations and training, which are deeply rooted in these sentiments, develop and foster an inner strength, as well as a distinct way of thinking. The ambiguous, hostile, and often isolated environments in which SOF are required to operate, compel SOF personnel, at all levels, to become masters of themselves and their environments. British Colonel Neville Morris Pughe stated that there is an inherent "realization that wherever they

[light infantry, specifically airborne troops] are committed in the world they will be in, more often than not, difficult terrain and climates, anything from snow to jungle and desert - deployed in conditions of logistical austerity." He further asserted that "This demands considerable physical fitness, considerable self-reliance on the part of the soldiers, an adaptability which is not always found in what one might call ordinary infantry or other units in the army."<sup>69</sup> This demanding environment and training also breeds individuals who have the courage and self-assurance to take action even in the event of an immediate absence of higher direction.

Furthermore, Charles Cotton argued that the "danger and risk taking" in these types of units offered a "proxy for combat and a way of identifying action-orientated leaders" for normal units.<sup>70</sup> In the specific case of airborne forces, American Major-General A.S. Newman asserted, "Parachute jumping tests and hardens a soldier under stress in a way nothing short of battle can do. You never know about others. But paratroopers will fight. You can bet on that. They repeatedly face danger while jumping and develop self-discipline that conquers fear."<sup>71</sup>

The arduous, challenging and realistic training provided in SOF organizations also boosts the confidence, experience, and motivation of its personnel. It has long been established that the greater the degree of challenge, danger, and hardship, the greater the development of mutual affection and attraction among unit members."<sup>72</sup> Sociologists have shown that high standards and requirements to enter into a group result in a greater sense of commitment and value placed on membership to that group by successful candidates.<sup>73</sup> The continual "testing and hardening" (strengthened by the fact that all, regardless of rank, must meet the same exacting standards) creates a deep bond based on group

identity and mutual respect. This strong sense of cohesiveness is instrumental in developing combat efficiency. In his monumental study of battlefield behaviour, *The American Soldier*, Samuel Stouffer noted that 80% of respondents believed that strong group integration was the main reason for stamina in combat. Similarly, Stouffer found that motivation is primarily dependent on group cohesion, and that group cohesion, in turn, is the decisive factor for combat efficiency.

The finished product of SOF training is worth the heavy personnel and material investment. Firstly, SOF units provide efficient and reliable combat forces that can be deployed on short notice to virtually any climate or political environment. Secondly, the trained personnel become an invaluable pool of expertise, which can be rotated back to more conventional units. They can then share their experience, knowledge, and training techniques to the benefit of others.

The wide range of capabilities rendered by SOF in itself is impressive. However, in a socio-political climate, which is still misguidedly searching for peace dividends, and is repeatedly slashing defence budgets, SOF offer an economical yet potent option. SOF organizations and operations normally represent a relatively minor commitment of manpower and material. They emphasize expertise and skill, rather than large amounts of hardware and sheer mass. In the post World War II era, units such as the SAS (Malaya, Aden, Oman), Royal Marine Commandos (Borneo), Special Forces (Vietnam), and the French Foreign Legion Parachute Regiments (Indo-China, Algeria, Chad) were used, often largely on their own, to wage war against insurgents in distant deserts and jungles. Their appeal to frugal bureaucrats was evident. Savings were realized by replacing generic capability, backed with quantity, with specific skill sets reinforced by quality.

The American example provides a graphic case in point. The Commanding General of the US Army Special Operations Command explained that the US SOF have remained untouched, despite the fact that the US Army has reduced by approximately 37% since 1991.<sup>74</sup> On an average day there are approximately 1500 soldiers deployed to some 45 to 60 countries.<sup>75</sup> During the Fiscal Year 1997 alone, SOF conducted 17 crisis response operations, 194 counter-drug missions, and humanitarian de-mining operations in 11 countries.<sup>76</sup> The point worth noting is that the substantial capability and flexibility which is provided by the US SOF comes at the cost of only 1% of their defence budget.<sup>77</sup>

The challenge is how to apply the concepts discussed to the Canadian case. The difference between American (and other major powers) and Canadian global responsibilities and strategic interests is manifest: the needs and budgets of other nations are on a whole scale than ours. However, the utility and value of SOF for Canada still merits discussion. The Army's recently published keystone document, *Canada's Army*, states that, "The Army exists first and foremost to defend Canada and protect vital national interests."<sup>78</sup> Furthermore, it articulates the importance of "giving the Government of Canada policy making flexibility by permitting it a wide range of options and responses in times of crisis. This includes the ability to project a resolute and authoritative presence to influence or resolve situations."<sup>79</sup> The Canadian Defence Objectives include the defence of Canada and the protection of Canadian sovereignty; meeting Canada's defence needs through collective security arrangements, and contributing to global security.<sup>80</sup> Various Department of National Defence documents specify the exact tasks which the Army is expected to perform. These include: humanitarian assistance and disaster

relief (both domestically and internationally); assistance to other government departments; search and rescue; response to terrorism; Aid to Civil Power; defence of North America; evacuation of Canadians abroad; NATO collective defence; support to international security; and enhancement of international peace and stability.<sup>81</sup>

Obviously, these defence objectives and tasks are worthy of support. However, it is the means to achieve these ends (or lack thereof) which causes concern. The 1994 White Paper noted, "While the maintenance of specialized combat skills and capabilities is essential, the decision to retain combat-capable forces should not be taken to mean that Canada must possess every component of military capability."<sup>82</sup> The problem is, no formalized assessment was ever conducted in order to ascertain what type of force, beyond the present one, was needed to meet the needs outlined in the White Paper. The existing template of mechanized forces (designed for the NATO battlefield in Europe) was identified as the best method to "retain the degree of flexibility necessary to carry out its defence tasks and to respond to a wide range of potential operations," thus allowing the CF to operate effectively with its allies.<sup>83</sup> In reality, "multi-purpose combat forces" became the catch-all phrase used to protect sacred cows and ensure the continuance of the status quo. It tended to function more as a guard for parochial interests than as a flexible response to a variety of challenges.

Nowhere is this discouraging reality more evident than in the case of the Light Infantry Battalions. The opportunity existed to develop true light infantry on a Ranger / SOF model. These forces could have provided a wide variety of skills, they probably would have possessed high readiness,

and they could have been capable of rapid deployment. All these attributes are well suited to meet the needs of an "unpredictable and fragmented world," as well as provide the flexibility required for domestic emergencies. Instead, they were created as mechanized battalions in waiting. In fact, the model used for the Light Infantry Battalions was the existing mechanized infantry organizational establishment.<sup>84</sup> The designation "light infantry" was meant to indicate that the three new battalions were on a restricted scale of issue for personnel and equipment, rather than based on a doctrinally based light infantry role.<sup>85</sup> If any doubt regarding the designation existed, further budget cutting exercises in 1998 determined that, if required, further savings would be sought from "light infantry" billets vice mechanized positions.<sup>86</sup>

This myopic approach is not surprising. Presently, the Canadian army "lexicon" does not recognize Special Operating Forces or Special Operations. The latest version of the *Land Force Tactical Doctrine* [B-GL-300-002/FP-000] identifies only "unique operations," such as airmobile, airborne, or amphibious operations by encircled forces, and operations in specific environments.<sup>87</sup> The absence of SOF operations or organizations is lamentable. SOF offer military and political decision makers an economical option, which would provide the flexibility and responsiveness needed in an unstable and changing world.

Moreover, by restructuring the Army into a particular niche, namely light forces with a distinct SOF capability, Canada could actually enhance its ability to meet its defence commitments and objectives. Light Armoured Vehicle (LAV)-based battle groups could furnish the generic "multi-purpose combat forces" meant to be the back-bone of the Army. An SOF brigade would augment these forces, and provide the flexibility and rapid response needed to meet crises, both

domestically and internationally. The SOF capability should include Ranger-type, doctrinally based light infantry battalions. These light battalions would focus on distinct skills and be capable of the tasks already discussed.

The existence of these SOF units would increase efficiency. The units would place more emphasis on highly-skilled individuals rather than a quantitative emphasis on costly generic equipment templates. Furthermore, skill and training levels for both the LAV-based conventional units and the SOF organizations could be focused. Rather than trying to accomplish a wide spectrum of activity in one year with a limited budget, the respective forces could concentrate on their speciality. Additionally, this would allow for the centralization of certain skills, such as parachuting, in one location at increased cost savings and operational effectiveness. Furthermore, the SOF units could provide a cadre of experts who are always current, and capable of training others in such skills as mountain (or other specific environmental) operations, if the need arises. Finally, additional savings can be realized by scrapping equipment that no longer meets any purpose other than acting as a reminder of past service.

Of greater importance; however, is increased operational effectiveness. An SOF capability will ensure the ability for rapid response to a crisis, whether domestic or international. SOF units, at high readiness and with great mobility, would be capable of immediate reaction. A continual rotation of SOF units on "stand-by" status would provide enormous flexibility. In certain situations, they could secure a port of entry in order to provide the breathing space necessary to allow heavier forces from Canada or other coalition countries to arrive.<sup>88</sup>

This concept is not new. The original intent of Force Mobile Command (FMC) in 1965 was for two basic types of formations and units: light airborne / air transportable forces

for the Defence of Canada, peacekeeping, the Allied Command Europe (ACE) Mobile Force, and small limited wars; heavier armoured and mechanized forces to fulfil the Canadian Army's role in NATO Europe.<sup>89</sup> General Allard wrote in his memoirs that the most important element of the newly integrated Armed Forces was the concept of "a mobile command of an equally mobile, global force, capable of rapid deployment anywhere in the world to carry out peacekeeping or peace-restoring tasks or to wage a limited, conventional war."<sup>90</sup> Unfortunately, some find it difficult to leave behind the Cold War era of NATO, and get on with the future. The day of the Soviet armoured onslaught over the Northern European Plain is gone. Whether it will return is a moot point. One must recognize what the government and public is willing to commit to. The Army can tailor its force to be one which provides the required capabilities; or it can retain its present force structure, one which is perceived by many as outdated. It is a choice between remaining relevant or becoming anachronistic. Only by specializing can the Army meet the ambitious goal of being "able to fight alongside the best, against the best."<sup>91</sup>

It is often forgotten that the best of intentions or promises do not earn the respect or confidence of one's citizens,

allies, or the international community.<sup>92</sup> Actions speak louder than words. Sometimes quality and speed of intervention, when and where it is most required, is worth substantially more than quantity once the crisis has passed. A specialized capability, which offers an actual force that can be used for alliance or coalition needs, will be far more welcome, and merit more recognition, than hollow assurances.

SOF offer Canada such a trump card. Historically, SOF has proven to be an economically efficient defence tool, which provides an array of skills in both war and peace. Furthermore, the utility and value of SOF has grown in the post Cold War period. SOF now represent an integral element of the defence team of the future. For Canada, SOF represent a cost efficient means of fulfilling the nation's security needs of tomorrow. Their ability to provide the flexibility, mobility, and skill required to respond quickly to a crisis anywhere within Canada's (nearly 10 million square kilometres of territory), as well as anywhere in the world, will ensure the Army and Canadian Forces remain a viable institution in the next century.



### About the Author . . .

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## ENDNOTES

- 1 W.B. Mitchell, *Memoirs of World War I* (New York: Random House, 1960), p. 152.
- 2 Jack Granatstein, "On Military Education," *On Track*, Vol 3, No. 3, November 1998: p. 4.
- 3 G.R. Sullivan, and M.V. Harper, *Hope is a Not a Method* (New York: Broadway Books, 1997), p. 10.
- 4 Aaron Bank, *From OSS to Green Berets: the birth of Special Forces* (Novato, CA: Presidio, 1986), p. 167.
- 5 Ibid, p. 167.
- 6 Frank Barnett, B.H. Tovar, and Richard H. Shultz, eds., *Special Operations In US Strategy* (Washington D.C.: National Defence University Press, 1984), p. 299.
- 7 Colin S. Gray, *Explorations in Strategy* (London: Greenwood Press, 1996), p. 156
- 8 Alfred H. Paddock, *US Army Special Warfare. Its Origins* (Washington, D.C.: National Defence University Press, 1982), p. 122.
- 9 E.N. Luttwak, S.L. Canby, and D.L. Thomas, *A systematic Review of "Commando" (Special) Operations, 1939-1980* (Potomac, MD: C and L Associates, 24 May 1982) quoted in Gray, p. 147.
- 10 Dr. Terry White, *Swords of Lightning: Special Forces and the Changing Face of Warfare* (London: Brassey's, 1997), p. 1.
- 11 Eliot A. Cohen, *Commandos and Politicians* (Cambridge: Center for International Affairs, Harvard University, 1978), pp. 15-28.
- 12 See D.R. Segal, Jesse Harris, J.M. Rothberg, and D.H. Marlowe, "Paratroopers as Peacekeepers," *Armed Forces and Society*, Volume 10, No. 4, Summer 1984: p.489 and Donna Winslow, *The Canadian Airborne Regiment in Somalia. A Socio-cultural Inquiry* (Ottawa: Commission of Inquiry into the Deployment of Canadian Forces to Somalia, 1997), pp. 128-138.
- 13 Gray noted that "special operations forces undertake missions that regular forces either cannot perform or cannot perform at acceptable cost." Gray, pp.149 & 190. The US Special Operations Command (USSOCOM) current definition of special operations is: "...operations conducted by specially trained, equipped and organized DOD forces against strategic or tactical targets in pursuit of national military, political, economic or psychological objectives. These operations may be conducted during periods of peace or hostilities. They may support conventional operations, or they may be undertaken independently when the use of conventional forces is either inappropriate or infeasible." Quoted in Adrian Weale, *Secret Warfare* (London: Hodder and Stoughton, 1997), p. 4. The former Commander of USSOCOM noted that "today's SOF offer special skills, unconventional tactics; small, rapidly deployable units; and unique capabilities that set them apart from conventional forces. Gen Henry H. Shelton, "Special Operations Forces: Looking Ahead," *Special Warfare*, Volume 10, No 2, Spring 1997: p. 3 and *Defense* 97, issue 3, p. 34.
- 14 The terms "SOF" and "elites" may be used interchangeably throughout the text in order to convey the ideas of other authors. Colin Gray noted that "elite, as a quality refers directly to the standard of selection, not to the activity that soldiers are selected to perform." He stated that "Special operations forces must be elite forces but elite forces generally are not special operations forces" (Gray 158). Conversely, Douglas Porch noted conventional measures of elite status as such benchmarks as "battlefield achievement, military proficiency, or specialized military functions." For the purpose of this paper the entitlement of elite status (relying heavily on Cohen's definition) will be based on the following criterion: 1. Selection - ie, rigorous screening processes which maintain extremely high standards of mental and physical ability / fitness, professional experience and skill levels, maturity, and motivation; 2. Designation of a specific / special mission (either conventional or unconventional or both); and 3. A recognized reputation for excellence (based on the level of training, expertise, and professionalism of the group, or on its success in operations). As a result, I contend that not all SOF units are necessarily elite. For instance Airborne units or Light Infantry Battalions in a "Ranger" role do not necessarily meet all the criteria. Although the members demonstrate unique capabilities and training, they do not merit elite status. They demonstrate different skill sets than a conventional unit; however, they do not necessarily represent an individual qualitative superiority over the latter.
- 15 Robin Neillands, *In The Combat Zone* (London: Wiendenfield & Nicholson, 1997), p. 4.
- 16 Cohen, p. 95
- 17 Bank, p. 147.
- 18 Field Marshall Sir William Slim, *Defeat Into Victory* (London: Cassell and Company Ltd., 1956), p. 548.
- 19 Ibid, pp. 202-203.;
- 20 Paddock, p. 148.
- 21 Gen Sir Peter De La Billiere, *Looking For Trouble. SAS to Gulf Command* (London: Harper Collins Publishers, 1995), p. 102.
- 22 H.R. Simpson, *The Paratroopers of the French Foreign Legion* (London: Brassey's, 1997), p. 39.
- 23 Peter Stiff, *Selous Scouts. Top Secret War* (Alberton, South Africa: Galago Publishing Inc.,1982), p. 54.
- 24 White, p. 11.
- 25 MGen J.L.Hobson, "AF Special Operations Girds for Next Century Missions," *National DEFENSE*, February 1997, p.27. Douglas C. Waller asserted that Congress had passed the law establishing a new and autonomous Special Operations Command,

with its own budget, because of the Pentagon's poor treatment of SOF organizations and operators. *Commandos*. D.C. Waller, *The Inside Story of America's Secret Soldiers* (New York: Simon & Shuster, 1994), pp. 32-35.

26 Winston S. Churchill, Winston S., *The Second World War. Their Finest Hour* (Boston: Houghton Mifflin Company, 1949), pp. 246-247.

27 Robert W. Black, *Rangers in World War II* (New York: Ivy Books, 1992), p.8. The need of support from the highest levels was fully appreciated by David Stirling. By means of subterfuge, he submitted his proposal, for the establishment of the SAS, direct to the C-in-C for Middle East Headquarters. This was done to avoid the "layer on layer of fossilized shit [staff]" which he thought "ludicrously swollen, unnecessarily big and wholly obstructive to anything that looked like a new idea." Anthony Kemp, *The SAS at War* (London: John Murray, 1991), p. 6.

28 Black, p. 11.

29 Paddock, pp. 30-32.

30 Simpson III, Charles M, *Inside the Green Berets. The First Thirty Years* (Novato, CA: Presidio, 1983), p. 16.

31 Ibid, p. 65. See also Paddock, p. 32 and Cohen, pp. 40-41.

32 Eric Morris, *Churchill's Private Armies* (London: Hutchinson, 1986), p. 90.

33 Slim, p. 547.

34 Philip Warner, *Phantom* (London: William Kimber, 1982), p. 11. SOF organizations generally sought those individuals who displayed an aggressive spirit, courage, independence of thought, initiative, above-average intelligence, motivation, physical stamina, self-reliance and self-discipline.

35 See Cohen, pp. 56-58.

36 Slim, 546; and Morris, *Churchill's Private Army*, p. 243.

37 Andy McNab, *Immediate Action* (London: Bantam Press, 1995), p. 381.

38 Slim, p. 546.

39 Tom Clancy, *Into the Storm. A Study in Command* (New York: Berkley Books, 1997), p. 119.

40 Cohen, p. 61.

41 Slim, p. 547. See also Black, p. 65.

42 This is often the result of the hazardous high risk nature of the tasks assigned, as well as the fact that the units in question are normally lightly armed due to the nature of the organization and task. This raises the criticism of many SOF units, that their capabilities are not understood by conventional commanders, and thus SOF units are more often than not misemployed. A sampling of operations during World War II amply demonstrates the high risk nature of some SOF endeavours. The first SAS raid suffered a 64% casualty rate; the mission to kill Rommel 96%; the St.

Nazaire raid 60%; the landing at Marina 48%, and the commando action at Tragino 100%. In addition, the First Special Service Force suffered an incredible 78% casualty rate in Italy.

43 Cohen, p. 56.

44 A.B. Feuer, *Commando! The M/Z Unit's Secret War Against Japan* (Wesport, Connecticut: Praeger, 1996), p. 159.

45 Kurt Gabel, *The Making of a Paratrooper* (Lawrence: University Press of Kansas, 1990), p. 268. The German paratroopers suffered 58% casualties in the invasion of Crete, a full 25% of the participants being killed; the Waffen SS Paratroop Battalion suffered 62% casualties in its raid on Tito's headquarters in Yugoslavia in 1944; approximately 80% of the British 1st Airborne Division was lost during Operation Market Garden; and the American 82nd Airborne Division incurred 27% casualties in Sicily and 46% in Normandy.

46 Charles A. Cotton, "Military Mystique." (Source Airborne Forces Museum Files).

47 Cohen, p. 74.

48 De La Billiere, p. 117.

49 Morris, *Guerillas in Uniform*, p. 15.

50 John Talbot "The Myth and Reality of the Paratrooper in the Algerian War," *Armed Forces and Society*, November 1976, p. 73.

51 Cohen, p. 69. See also Winslow, pp. 135-141.

52 Kemp, p. 248 and Weale p. 139.

53 Tom Clancy, *Airborne* (New York: Berkley Books, 1997), p. 231.

54 Included as Appendix A in Michael Mazarr, *Light Forces and the Future of US Military Strategy* (New York: Brassey's 1993), p. 163.

55 Richard Cheney, "US Defense Strategy for an era of Uncertainty," *International Defense Review* (Defense 1992), p. 9.

56 William F. Perry, "Defense in an Age of Hope," *Foreign Affairs* (November / December 1996): p. 75.

57 Clancy, *Airborne*, pp. 25, 39, and 231.

58 Ibid, p. 231.

59 V.M. Rosello, "The Airborne is not Obsolete," *Army*, Vol 42, No. 9, September 1992, p. 42.

60 John R. Cuneo, *Robert Rogers of the Rangers* (New York: Oxford University Press, 1959), p. 33.

61 De La Billiere, p. 411.

62 Mark Lloyd, *Special Forces. The Changing Face of Warfare* (New York: Arms and Armour Press, 1996), 235; B.J. Schemmer, "Special Ops Teams Found 29 Scuds Ready to Barrage Israel 24 Hours Before Ceasefire," *Armed Forces Journal International*, July 1991, p. 36; and Waller, *Commandos*, p. 249.

63 Clancy, *Into the Storm*, p. 119. Targets can include airfields, headquarters, lines of communication, logistical installations, and the seizure and destruction of other enemy facilities of consequence.

64 Two examples highlight the effect. The attack on the Tragino aqueduct in Italy, caused minimal physical damage or dislocation, but the Italians were so unnerved by this operation that they diverted valuable manpower and resources in its aftermath for the protection of every vital point in the country. Furthermore, the series of raids in Norway resulted in a diversion of German manpower which totalled 372 000 troops by June 1944.

65 Gray, p. 167.

66 Schemmer, p. 36; and Waller, *Commandos*, pp. 34 & 241. Waller asserted that 7705 SOF personnel participated.

67 James C. Hyde, "An Exclusive Interview with James R. Locher III," *Armed Forces Journal International*, (November / December 1992), p. 34.

68 Peter Schoomaker, "The Special Operations Team," *Armed Forces Journal International*, (February 1998): p. 32.

69 Scott A. McMichael, *Discussions on Training and Employing Light Infantry* (Fort Leavenworth: Combat Studies Institute Report, 1986), p. 2.

70 Cotton, *Military Mystique*. See also Cohen, pp. 32-34.

71 MGen A.S. Newman, *What Are Generals Made Of?* (Novato, CA: Presidio, 1987), p. 193.

72 W.D. Henderson, *Cohesion: The Human Element in Combat* (Washington: National Defence University Press, 1985), p. 14.

73 Major James McCollum, "The Airborne Mystique," *Military Review*, Vol. 56, No. 11 (November 1976): p. 16. Elliot Aronson of Stanford University and Judson Mills of the US Army Leadership and Human Research Unit established this in their 1959 laboratory experiments. They stated, "Subjects who underwent a severe initiation perceived the group as being significantly more attractive than those who underwent a mild or no initiation."

74 "US Army Special Operations: A Vital and Vibrant Force - Interview with Lt.Gen W.P. Tangney," *Army*, April 1998, p. 22. See also Ramon Lopez, "Special Operations Survives Pentagon Budget Constraints," *IDR*, (3/1993): p. 247; and M. O' Hanlon, *The Art of War in the Age of Peace - US Military Posture for the Post-Cold War World* (London: Praeger, 1992), p. 5.

75 Ibid, p. 26.

76 Schoomaker, p. 33.

77 Hyde, p. 34.

78 *Canada's Army* (Ottawa: DND, 1998), p. 5.

79 Ibid, p. 4.

80 Ibid, p. 57; and, *1994 Defence White Paper* (Ottawa: DND, 1994), pp. 15-39.

81 *Defence Planning Guidance 1998 (DPG 98)* (Ottawa: DND, 1997), pp. 3-9 to 3-11; and Canada, *National Defence - Performance Report*, For the period ending March 31, 1997 (Ottawa: DND, 1991), pp. 7-22.

82 *1994 White Paper*, p. 13.

83 *Performance Report*, p. 5; and *1994 White Paper*, p. 13.

84 LFC Summary of Propositions on the light infantry battalion produced by the Infantry Working Group held at LFCHQ on 2-3 May 1995.

85 Sharon Hobson, "Canadian Army Reacts to Life After the Paras," *IDR*, (12/1996): p. 25 (comments by the 1996 Director General of Land Force Readiness); and Col N.M. Pettis, "Message from the Director of Infantry," *Infantry Journal*, No. 31 (Spring 1997): p. 2.

86 Interview with US TRADOC LO at Directorate of Army Doctrine, Kingston, 15 April 1998.

87 *Land Force Tactical Doctrine*, Vol. 2 (Ottawa: DND, 1997), pp. 1-22 to 1-24. Canada does possess one SOF type unit-JTF 2- which was the successor to the RCMP Special Emergency Response Team (SERT). Since 1992, this organization has been capable of responding to terrorist incidents. *Performance Report*, p. 15; and David Pugliese, "Elite Canadian Commando Force," *Ottawa Citizen*, 4 November 1998, p. A1.

88 It must be noted that light infantry can be trained, with relative ease, to operate in the mechanized or motorized role, particularly if the troops are rotated between units on a regular basis. As an example the former Airborne Regiment successfully rotated through Cyprus on no fewer than three occasions. In Somalia, despite leadership problems, the Regiment was highly commended by American Commanders and UN diplomats for its operational success in pacifying its vast sector. In addition, it was praised, in 1994, for its prowess in a mounted deterrence patrolling operation in Rwanda..

89 "Appreciation and Proposed Options for the Structure of the Canadian Army Field Force 1965-70 Period," 5 April 1965. DHist File 112.11.003 (D3 Box 3). The "Force Structure-Mobile Command Guidelines" noted that the remainder of forces not required for the role in Europe should be organized as lightly equipped forces for employment in the Defence of Canada, UN operations and ACE Mobile Force. Ibid, Box 1.

90 Jean V. Allard, *The Memoir of General Jean V. Allard* (Vancouver: U.B.C. Press, 1988), p. 240.

91 *1994 White Paper*, p. 14.

92 The August 1998 CDA submission to the House of Commons Standing Committee on Finance documents the growing criticism of allies in regard to Canada's efforts at meeting its defence commitments. Comments from American, British, and German sources indicated a recurring perception that Canada is "increasingly unwilling and virtually unable to share in the burden of collective security." (p. 3).



## DEEP OPERATIONS

### THE KEY TO SUCCESS

*Captain Mike Johnstone, CD*

The Canadian army has adopted a battlefield framework categorising activities into deep, close, and rear operations. Furthermore, Canadian army doctrine stresses the importance of deep operations in establishing the conditions for decisive and future close operations. However, as pointed out by Lieutenant-Colonel Cessford,<sup>2</sup> the Army is not prepared to participate in deep operations. The Army lacks adequate attack resources, Intelligence Surveillance Target Acquisition and Reconnaissance (ISTAR) platforms, organizational structure, and training to perform this critical operation.

The rapidity and complexity of movement and manoeuvre expected on today's battlefield, coupled with technological advances in sensors, communications and weapons' capabilities, mandate that Allied forces win through the development of tactics and doctrine which support fighting with fewer forces and weapon systems than those available to the enemy. This establishes the requirement for simultaneous generation and application of combat power for close support and in depth.<sup>3</sup>

As the battlefield expands, the importance of attacking the enemy throughout his depth increases. It is essential that an enemy commander not be afforded the opportunity of deploying his forces in a manner that will overwhelm friendly forces. Deep operations assist in preventing this situation by disrupting his cohesion and keeping his entire force off balance. The Canadian army must develop the organizational structure and acquire the equipment needed to facilitate deep

operations at the brigade level. The aim of this paper is to outline the steps necessary to ensure that the Canadian army is capable of prosecuting deep operations.

*It is preferable to conduct deep and close operations concurrently, not only because each will influence the other, but also because the enemy is best defeated by fighting him simultaneously throughout his depth.<sup>1</sup>*

#### DEEP OPERATIONS—OVERVIEW

Our doctrine has established a framework of operations (using "deep," "close," and "rear" designators) that provides a means of visualising the relationship of friendly forces to one another, and to the enemy, in terms of time, space, resources, and purpose.<sup>4</sup> Deep and close operations are conducted concurrently because engaging the enemy throughout his depth is the best means of defeating him.<sup>5</sup> The synchronization of all combat functions plays a key role in planning, coordinating, and executing deep, close, and rear operations.

Deep operations are conducted to deny the enemy freedom of action.<sup>6</sup> They expand the battlefield in time and space, making it more difficult for the enemy to concentrate his combat power without loss, and thus diminish the coherence and tempo of his actions. The objective goes beyond defeating the enemy, and becomes the

acceleration of his defeat.<sup>7</sup> Information Operations determine the location of the enemy and permit firepower to engage the enemy. The interaction between these two combat functions—under the direction of the command function—is critical to the success of deep operations.<sup>8</sup> By keeping the enemy from his objectives and constraining his freedom of action, deep operations shape the battlefield, creating favourable conditions for close operations and ultimately for the commander.

Deep operations are generally conducted at long range and over a protracted period of time against enemy forces and functions beyond close operations. Deep operations are planned in conjunction with the commander's intent and concept of operations. They are designed to shape the battlefield so that the commander can achieve his mission. Deep operations involve all combat functions. However, Firepower and Information Operations are usually the largest contributors. ISTAR resources are directed at locating high value targets and passing that information back to the Deep Operations Coordination Centre (DOCC). Then, fire support assets (artillery, armed aircraft, attack helicopters, and offensive Information Operations) and/or manoeuvre forces are directed to attack.

The objectives of deep operations are the same as the targeting objectives. They are to limit, disrupt, delay, divert, and destroy the enemy.<sup>9</sup> As with targeting, these objectives focus assets on enemy capabilities that interfere (or could interfere) with the achievement

of friendly objectives, and disrupts enemy plans. These objectives are used to define the effect that the deep operation is trying to achieve on specific enemy assets, equipment or functions.

Current American doctrine views deep attack as an essential activity for success.<sup>10</sup> Whereas our doctrine says that deep operations are important, American doctrine is moving away from deep operations as a mere supplement to close operations, and elevating its importance. Increasingly, deep operations are being viewed as a potential main effort, capable of achieving objectives.<sup>11</sup> The extended ranges of their field artillery, the ability to conduct long-range attacks using attack helicopters, and the impressive capabilities of their ISTAR resources (both in quantity and quality) have dramatically increased the range and scope of their deep operations. This increase provides their commanders with the ability of directly influencing the enemy at greater distances, and earlier, than previously thought possible. By starting deep operations earlier, the commander has more opportunities to set the tempo for the battle and disrupt the enemy's cohesion. As a result, he can more rapidly defeat an enemy.<sup>12</sup>

The Americans are continuing the development of a "digital division" for the beginning of the 21<sup>st</sup> century. The Army XXI division is designed to operate effectively over large distances, dominating the battlefield through long range lethal and non-lethal means. During their Advanced Warfighting Experiment, it became clear that "shaping the battlespace required the division to unambiguously integrate all combat multipliers with its scheme of maneuver and thus overwhelm the enemy."<sup>13</sup> They aim to attack an enemy throughout his depth, using overwhelming force at a tempo unmatched by the enemy in order to bring about the rapid and total collapse of coherent resistance. The emphasis

on shaping pervades the entire structure of the division. The brigade structure has enhanced its ability to shape the battlefield with the addition of striker platoons and a brigade reconnaissance troop.<sup>14</sup> Furthermore, the division aviation brigade and the Multiple Launch Rocket System (MLRS) battalion are brought closer together, thus facilitating support of division deep operations.<sup>15</sup>

Deep operations are not a fad; they have been used successfully in many different battles and campaigns.<sup>16</sup> They are an essential component of the commander's plan. They disrupt and delay enemy operations, and usually overwhelm the enemy commander. They permit friendly commanders an opportunity to set the tempo for the battle. They shape the battlefield and create favourable conditions for close operations.

#### DEEP OPERATIONS AS A SYSTEM

Before we look at the Canadian reality, let us look at the components of deep operations. The three components are command, information operations and firepower.

The **Command** component is the brains of deep operations. This component takes the commander's intent and concept of operations, along with the tasks, resources, and limitations assigned to deep operations, and develops the plan. The plan needs to be integrated into the overall formation plan; it therefore needs to be developed in conjunction with the rest of the formation staff. At the formation level, deep operations must be an integral part. The component also has a major role to play in the targeting process, and, in most cases, will be responsible for the execution of the Attack Guidance Matrix.

Once the battle starts, this command component must execute the plan, modifying it as the situation develops to ensure that it continues to meet the

intent of the commander. There is a requirement for the timely passage of information throughout the resources dedicated to deep operations, as well as to those involved in close operations.

The next component is **Information Operations**. Without the appropriate sensors, deep operations are doomed to fail. Thus, this component provides the predictive intelligence support to the commander's plan, as well as the targeting information that enables the engagement of enemy resources. At the same time, and using the same resources, this component provides the commander with the situational awareness within his area of interest and influence, permitting the adjustment of plans while the operation is in process.

The final component is **Firepower**. The ability to attack the targets deemed important by the command component, and located by the information operations component, is crucial. The fire support system needs to have the range and types of ammunition required to engage enemy targets. Furthermore, the fire support resources need to be integrated appropriately to ensure that the right target is being engaged by the appropriate attack resource. The timely dissemination of target information to the shooter is essential.

#### THE CANADIAN REALITY

The Canadian army is not ready to execute deep operations. Although we conduct deep operations doctrinally, in reality we have done little to prepare ourselves for anything but close operations. As Lieutenant-Colonel Cessford pointed out in his article, we must accept the inherent risk of close operations, and begin preparing ourselves for the execution of deep operations.

Is this proposal a big risk? No! The effective conduct of deep operations creates the conditions for success in close operations. It is much better to

kill the enemy at a distance, rather than wait until we see the whites of his eyes.

Using the components of deep operations outlined above, where does the Canadian army stand at the moment?

**Command.** We have deep operations theory as well as a doctrinal organization for the division and above. B-GL-300-007/FP-001 *Firepower* calls for a Deep Operations Coordination Cell (DOCC) to command deep operations at divisional and higher levels. The DOCC focuses the activities of all units, agencies, and cells involved in supporting deep operations; it functions under the direction of the chief of staff. However, the Joint Force headquarters does not have a DOCC, and its Fire Support cell is limited to one advisor—without a staff.<sup>17</sup> Within the brigades, there is no doctrinal structure for commanding deep operations.

**Information Operations.** Our current sensor platforms cover some areas very well. Canadian Electronic Warfare (EW) systems are world class. The arrival of the Coyote has also enhanced the effectiveness of the brigade reconnaissance squadrons. Additionally, increasing degrees of support from national level ISTAR resources are available to deployed forces. Beyond these assets, a void exists, limiting our ability to conduct effective deep operations. A major capability gap exists in the area of Target Acquisition—Canada has no counter mortar or gun radars, and no Unmanned Aerial Vehicle (UAV). Thus, if we were to deploy the SABRE Brigade<sup>18</sup> to a conflict, we would have to rely heavily on information provided from higher sources.

**Firepower.** The Canadian military has some attack systems that can participate in deep operations. The Air Force possesses CF-18s, a capable and versatile attack platform. The Army possesses a howitzer and some EW means for the prosecution of deep operations, although the M109 has a

limited capability due to its range of only 18 km. As mentioned above, our offensive EW capabilities are excellent.

Overall, a pretty sorry picture. As a doctrinally lead army, it is time to rectify this deficiency. The Army must act now to make the required changes so that we can conduct deep operations.

### WHERE DO WE GO FROM HERE?

Given the importance of deep operations within our doctrine, the Army can only continue to ignore it at its peril. This means, that all Army efforts—Director Land Requirements, Directorate of Army Doctrine (DAD), Directorate of Army Training (DAT), Directorate of Land Strategic Concepts, the Canadian Land Force Command and Staff College, and the mechanized brigade groups—should be directed towards ensuring that we become capable of conducting deep operations. There are a number of things that need to be improved within the three components mentioned above.

**Command.** The Joint Force Headquarters needs to form a DOCC to command deep operations at the Joint Force level. The DOCC needs to be robust and include the three services, but especially the Air Force and Army. The army representatives need to understand our deep operations doctrine and be ready to push ahead for the future.

At the brigade level, deep operations should be planned and coordinated by a similar cell. Since the Commanding Officer Direct Support (DS) regiment chairs the brigade targeting team,<sup>19</sup> one option is for his Fire Support Coordination Centre (FSCC) to perform these tasks. Another option would be to create a small DOCC at brigade level. The first option is preferable; however, given the current small size of the FSCC, it may overload the Operations Officer. It is recommended that the establishment of the Artillery Regiment be increased by

two officers to work within the FSCC on deep operations. The important thing is to ensure that the deep operations are planned and coordinated in conjunction with the commander's intent and concept of operations.

**Information Operations.** In this component there are two areas that need addressing. Obviously, new equipment is required. However, just as importantly, the process of transmitting the information needs to be addressed. The information must be passed in a timely fashion to the right agencies, otherwise its value decreases rapidly.<sup>20</sup>

The ISTAR concept is very well suited for deep operations. The concept calls for an integrated approach to developing an enemy and ground situational awareness.<sup>21</sup> By integrating the sensors and the passage of information, the intent is to create an all source centre of information. This all source centre would provide intelligence to the command component that is necessary to permit the engagement of targets.<sup>22</sup> This concept continues to be developed. Recent developments from Army Experiment 1, mirroring an approach taken by DAD two years ago, have called for the creation of an ISTAR cell to be the single coordination centre for ISTAR resources. The intent is to improve the employment of all ISTAR assets and thereby increase the speed of a commander's decision-action cycle.<sup>23</sup>

An ISTAR cell or (better still) an ISTAR unit<sup>24</sup> would be extremely beneficial for deep operations. The ISTAR cell would be involved in the planning and conduct of deep operations. As a member of the targeting team (linked closely to either the DOCC or the fire support system), it is part of the planning process for deep operations, therefore its activities are more likely to be synchronized with the deep operations plans. The efforts of the ISTAR resources can be prioritized and the information rapidly transmitted

to the appropriate attack resource—without compromising intelligence production. This integration of planning and execution reduces the decision time, thereby increasing the tempo of our operations.

A better process will assist, but it does not remove the need for new sensors. We need sensor systems that can find the enemy as he enters into our area of interest. The first step would be the acquisition of a UAV capable of providing real-time data with a range of at least 100 km. A project (L1225 Unmanned Airborne Surveillance and Target Acquisition System [UASTAS]) exists for the acquisition of a UAV. However it is stalled once again due to funding issues. This project should become the highest priority, and should be fielded as soon as possible.

Once we have UAVs, we need to identify procedures for their employment. Although UAVs have traditionally been considered division and higher level assets, given the trends towards smaller groupings and wider dispersion, brigades could effectively employ them.<sup>25</sup> Plugging a UAV troop into the ISTAR cell at the brigade level improves the situational awareness provided to the brigade commander. It is a combat multiplier, expanding the battlefield and permitting brigades to begin deep operations earlier.

A second step would be the acquisition of counter battery radars. These radars would be used to help locate enemy indirect fire systems, thereby permitting them to be attacked and effectively reducing the enemy's ability to attack our forces. Thus, friendly force protection is enhanced. Furthermore, if the enemy's ability to use fire support resources against our troops is reduced, our ability to maintain the tempo of our operations is increased. Once again, a project (L2588 Counter Battery Target Acquisition) has been on the books for some time, which is, however, currently stalled. This

project needs to receive a higher priority in the future.

The Air Force has a significant role to play in Information Operations. The GRIFFON needs a surveillance and target acquisition (STA) capability to permit it to assist in the ISTAR process. The project to satisfy this requirement is currently in progress and needs the full support of the Army. In certain circumstances, CF-18s can provide a significant reconnaissance capability as well.

There are other methods of acquiring targets in the brigade area of operations. The Americans deploy striker teams at the brigade level. Their task is to watch specific Target Areas of Interest (TAIs) and engage high payoff targets as determined during the targeting process. These teams require some special training and equipment, but can provide immense pay off during combat.

Thus, we need to agree on an ISTAR concept, increase the priority of ISTAR projects within the development cycle, and actively investigate the possibility of deploying striker teams. The implementation of these proposals will increase the amount of information available to our formations, thus improving our ability to generate situational awareness and target information. This information can then be used to expand the battlefield and permit deep operations to commence earlier, as well as provide the brigade commander with a better opportunity to shape the battlefield to suit his concept of operations.

**Firepower.** It would be ideal to have all of the above information. However, we have to be able to react accordingly. In order to conduct deep operations at the brigade level on the future battlefield, we need to increase the range and accuracy of our fire support assets and take advantage of the new munitions being developed. The important thing is the effect on the

target. The delivery means is determined once the effect has been decided upon. The system at brigade and divisional levels must therefore be flexible enough to engage targets in depth and close to friendly forces.

The field artillery is the backbone of the fire support system. We need howitzers to provide the fire support required during close and rear operations. These guns need longer ranges, greater accuracy, higher rates of fire, and ability to use the new munitions. The American CRUSADER would be an excellent choice; however, it is undoubtedly out of our price range. Therefore, we need to find a howitzer more like the PALADIN currently used by the US Army.<sup>26</sup> The longer range and new munitions would assist in deep operations, while maintaining the ability to support the forces in close operations.

As suggested by many different people, the Army needs to acquire some type of multiple rocket launcher system (MLRS). Such a system need not be a tracked version. There are wheeled versions (High Mobility Artillery Rocket System [HIMARS]), or the proposed trailer (rocket in a box) version,<sup>27</sup> that can complete the missions we would be assigning them. The range and flexibility provided by a MLRS greatly improves our ability to conduct deep operations. As mentioned above, the effects provided are key. The MLRS suite of munitions is very versatile, and can attack personnel and armoured vehicles. Munitions are being developed at this time, which greatly increase the range and versatility of MLRS.

Although the Americans currently use MLRS at divisional level, we could easily use it at a brigade group level, using the information provided by the UAVs and Counter Battery radars, to attack targets as they enter the brigade-group's area of operations. The brigade group could have a field artillery regiment with three gun batteries and

one MLRS battery. These additional assets would increase the brigade group's ability to prosecute deep operations, while maintaining support to close and rear operations.

The field artillery alone is not enough. We need to better integrate our Air Force into deep operations planning and execution. The CF-18 is an excellent airframe, which can conduct attacks on enemy assets and formations as directed. The acquisition of an attack helicopter is very important—it will greatly increase our ability and flexibility in conducting deep operations. Given financial constraints, it is more likely that Canada might be able to purchase a strap-on weapon platform for the GRIFFON helicopter. The army needs to support any Air Force's initiatives along these lines.

**Other requirements.** Completing the steps above would greatly improve our ability to conduct deep operations. However, they are not enough. We need to change our mindset towards deep operations, making it a priority. We also need to increase the training, both collective and individual, directed at this activity. Training provides the context for this mindset. If we do not include deep operations in training activities, then we will not conduct deep operations when we fight—You fight the way you train!

The focus of the Army over the last fifty years has been close operations. Our exercises have traditionally begun with the enemy just over the hill.<sup>28</sup> This focus remains virtually unchanged. The majority of brigade and divisional level Command Post Exercises focus on the manoeuvre battalions and companies, with fire support and IO activities being a secondary issue. We need to re-focus on deep operations; in fact, it needs to be the main effort of the Army. Our doctrine

must continue to stress the importance of deep operations in achieving success on the battlefield. New equipment and procedures need to be developed to ensure that the Army maximizes its ability to prosecute deep operations.

Thus, our collective training needs to be conducted in a manner that encourages commanders to employ, aggressively, deep operations. This change in emphasis will move the focus from the battle groups and combat teams to the brigade group and, more directly, to deep operations. Such a shift in focus will better prepare us for combat in the future. One of the advantages provided by simulation in collective training is the ability to conduct timely and effective deep operations.

Training is very important. We need to provide Army (and some Air Force) officers with the knowledge and skill to conduct deep operations. This can be effected on the Staff Course, and the Command and Staff Course, being offered at the Canadian Land Forces Command and Staff College. Collective training also needs to stress deep operations.

#### SUMMING UP

The Canadian army must accept the importance of deep operations on the battlefield of the future. The risk of

not doing so is pronounced. The Canadian army requires a deep operations cell at brigade group level and an effective fire support cell at the joint force level. At the same time, the ISTAR cell needs to be fully developed and fielded along with new ISTAR resources. The range and versatility of our fire support system needs to be increased. Finally, deep operations should be a major component of all training, collective and individual.

Deep operations are essential for success on the modern battlefield. The Canadian army needs to make them its main effort over the next decade. Doing so may cause some reorganization of our brigade group structure. It will require the acquisition of new equipment and changes to how we train. However, the payoff is immense. Deep operations reduce our casualties and improve our ability to dictate the tempo and flow of the battle to the enemy. In short, the effective prosecution of deep operations improves our chances of success.



#### *About the Author . . .*

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## ENDNOTES

- 1 B-GL-300-002/FP-000, *Land Force Tactical Doctrine*, pp. 1-13.
- 2 "Some Thoughts on an Army for the 21st Century," *Army Doctrine and Training Bulletin*, Vol. 2, No. 1 (Feb 99), p. 32: "...the Canadian army has resolutely refused to prepare itself for any form of combat beyond the conventional close battle. Our formations lack the structure, doctrine and equipment to conduct operations across the whole of the battlespace."
- 3 QSTAG 1286, (Draft 3), *Fire Support for Deep Operations*, April 1999, p. 1.
- 4 B-GL-300-002/FP-000, *Land Force Tactical Doctrine*, pp. 1-13.
- 5 B-GL-300-007/FP-001, *Firepower*, p. 14.
- 6 B-GL-300-001/FP-000, *Conduct of Land Operations—Operational Level Doctrine for the Canadian army*, pp. 5-3.
- 7 QSTAG 1286, p.2
- 8 LGen J.R. Rutherford, Commanding general, V Corps. "Shaping the Battlefield—Deep Operations" in V Corps, *FA Journal*, (April 1993), p. 7: "By going deep, I can separate the enemy's echelons, influence where and when the close battle will take place and what forces he'll bring to that battle—shape it for the divisions."
- 9 B-GL-300-007/FP-001, *Firepower*, Chapter 3.
- 10 General Donn A. Starry. "Extending the Battlefield", *Military Review*, (Jan-Feb 1997).
- 11 Maj K.M. Woods. "Deep Battle and Interdiction: The Twin Sons of Different Mothers," *FA Journal* (Jan-Feb 1998): pp. 9-11.
- 12 TRADOC. Pam 525-51, August 1994, Chapter 3, *Future Land Operations*.
- 13 Division XXI *Advanced Warfighting Experiment Initial Insights Report*, January 1998, slide 22.
- 14 The brigade reconnaissance troop is about the size of our reconnaissance squadrons. Striker platoons are forward observers equipped and structured to operate behind enemy forward troops and attack targets of importance in Target Areas of Interest, as outlined in the Attack Guidance Matrix. LtC B.J. Jordan and LtC M.J. Reardon. "Restructuring the Division: An Operational and Organizational Approach", *Military Review*, (May-June 1998). See also, Col J.T. Twohig. "Structuring Division XXI", *Military Review*, (May-June 1998).
- 15 Maj T.E. Brown. "Field Artillery Conversions to 3 X 6," *Field Artillery*, (Jan-Feb 1999): p. 12.
- 16 The air interdiction campaign in France in 1944 helped disrupt German cohesion and helped slow their response to the landings in Normandy. Furthermore, the Allied effort in DESERT STORM had deep operations being conducted at the strategic, operational and tactical levels.
- 17 According to 1 Canadian Division Defence Plan JAVELIN, 23 June 1998, there is an Artillery advisor of LCol rank. He works alone. There is no mention of a DOCC.
- 18 The SABRE Brigade is the organization for a Canadian expeditionary force.
- 19 B-GL-300-007/FP-001, *Firepower*, p. 37.
- 20 Target information is very time sensitive. Depending upon the attack resource and the target type, the location information may need to be disseminated within minutes.
- 21 Or as the new buzz words: "red and brown situational awareness." With red obviously being enemy and brown being the ground.
- 22 The targeting process will provide the initial direction to the ISTAR staff as to what needs to be found and the required timings.
- 23 Presentation on Army Experiment 1 and Maj Bowes' *Draft Reconnaissance, Intelligence, Surveillance and Target Acquisition (RISTA) Concept*, 11 Feb 1997. Both of these studies state a requirement for a single coordination centre for ISTAR. They push for an all-source centre for information.
- 24 Army Experiment 1 suggested that an ISTAR unit be created within a brigade. This unit would contain the major ISTAR resources in the brigade and command and control their employment to ensure the rapid creation of detailed situational awareness for the commander. I believe that this concept is a must for the Army as we progress into the area of information warfare.
- 25 Capt Jim Greengrass, *Concept of operations—Unmanned Airborne Surveillance and Target Acquisition System (UASTAS)*. In the concept he outlines an organization for a potential UAV Battery and how it could plug into the brigade, and thereby assist in brigade deep operations.
- 26 The requirement for a future howitzer to be tracked is debatable. It is much more important that a future howitzer is at least semi-autonomous, has a long range, burst fire capability and the ability to fire all modern types of ammunition.
- 27 The US Field Artillery currently uses both the tracked MLRS and HIMARS. They are looking at fielding a trailer-mounted MLRS (T-MLRS) in the next decade. The T-MLRS would be deployable by UH-60L helicopter and inserted to any location on the battlefield. It would then be fired from a command location at brigade or divisional headquarters. For one suggestion on how to employ it see: Maj Charles A. Jarnot. "Air Mech Strike: Revolution in Maneuver Warfare", *Military Review*, (March-April 1997).
- 28 During EX VENOM STRIKE, the requirement for soldiers to throw grenades prevented the artillery from actually engaging the objective. It was felt that it was more important that our soldiers could throw a grenade after running and conducting a live attack then for them to see the results of guns hitting the target and reducing the enemy's ability to respond to their attack.

## COMBINED ARMS OBSTACLE INTEGRATION

*Major Ken McKay, CD*

The first tactical element that requires a thorough understanding of combined arms operations is the Combat Team. With the approval of new obstacle integration doctrine by the Army Doctrine and Tactics Board (ADTB), it is imperative that the Combat Team Commander and his supporting engineer and artillery representatives share a common understanding and vision during defensive operations. Our doctrine now recognizes the fact that it is the combination and synchronization of fires, obstacles, and manoeuvre that will achieve the Commander's desired intent, and not any one element alone.

The techniques and procedures used to achieve this integration are outlined in B-GL-361-001/FP-001, *Land Force Engineer Operations*, and are based on US FM 90-7 *Combined Arms*

*Obstacle Integration*. The trends analysis reports issued by the US Combat Training Centers (CTCs) and personal observations with the US Battle Command Training Program (BCTP) show that the doctrine is not well understood at the sub-unit level in the US Army. I would venture to say that the same could be said of the Canadian army. The intent of this article is to explain the barrier planning/obstacle integration process at Company level, and highlight what the key participants should expect from each other in terms of support.

### DOCTRINAL BACKGROUND

As part of the Battle Group's (BG) Intelligence Preparation of the Battlefield (IPB), the supporting engineer, together with the BG

intelligence staff, will analyze the terrain and its effect on enemy and friendly manoeuvre. This analysis will form the basis of the Modified Combined Obstacle Overlay (MCOO), which in turn is used to develop threat Courses of Action (COA) and the Situational Templates (SITEMPs). These IPB products are key to developing the defensive framework. The operations staff uses the MCOO and SITEMP to group platoon strong points into Company sectors or Battle Positions (BPs), which dominate threat Avenues of Approach (AAs) through the battalion sector. In short, the Company Commander should begin planning with a good appreciation of what approaches the threat is expected to take into his sector, and what these forces should look like as they manoeuvre along these approaches.



Figure 1: Painting by E. Ramstead, courtesy US Army Engineer School



Based on current US threat models, an attacking mechanized battalion will require an AA approximately 1000 to 1500 metres in width to fully deploy into battle formation. This places two to three companies of 12 to 18 vehicles on line, each with a frontage of approximately 500 metres. At the risk of over-simplification, the BG will assign a single combat team and associated obstacle group to dominate each battalion sized AA. This combination of fires and obstacles on each AA will attempt to achieve one of four effects on the attacking battalion: disrupt, fix, turn or block.

The Company Commander, together with his engineer and gunner, are expected to meet the Commander's intent through the integration of fires and obstacles within a given sector or BP. It must be clear to all members of this team that the Commander's intent, as expressed in obstacle integration doctrine, consists of three components: target, effect, and location. The success of the Company mission is dependent not on the number of tank kills but on its ability to disrupt, fix, turn or block a specific target at the time and place envisioned by the Commander in his intent statement and Concept of Operations narrative. In short, the desired effect can be interpreted as a tactical mission, and the obstacle group is a combat team resource similar to an additional platoon or a priority of fires. This approach has the advantage of focusing our efforts on manipulating a specific element of the attacking force rather than a specific piece of terrain. It should also be noted that if the intent is to shape the enemy's manoeuvre, the term "Kill Zone" is probably not as accurate as the US term "Engagement Area" (EA)—the US term will be used for the remainder of the article.

#### ENGAGEMENT AREA DEVELOPMENT

Once assigned a sector or BP, the Company Commander will generally start planning by determining where he wants to engage the enemy. Once an area is selected, the Company direct fire

weapons are sited to cover the chosen EA. Weapons are sited to provide at least 500 metres stand off distance but still able to cover beyond the leading edge of the EA, which is generally about 2000 metres out or to the maximum effective range of the Combat Team direct fire weapon systems. Obstacles and fires within the 500 metre range are generally considered protective in nature, and are designed to break up the enemy's final assault and prevent decisive engagements. The integration of fires and obstacles in the 500 to 2000 metre plus range is of primary concern here. The general sequence for developing this EA is as follows:

- ✦ decide where the enemy is to be engaged by fires;
- ✦ array the company direct fire weapons so that fires are massed on the selected area(s), and establish the fire control measures;
- ✦ with the supporting engineer, site the obstacle group;
- ✦ with the supporting Forward Observation Officer (FOO), plan individual targets that support the combined effect of the direct fires and obstacles;
- ✦ coordinate obstacle emplacement, gun registration, and barrier material delivery operations;

- ✦ conduct obstacle hand-over with the supporting engineers; and
- ✦ conduct rehearsals.

On paper, the procedure does not appear to be overly complicated, but it does require detailed coordination on the ground in order to be effective. Past experience has shown that without a conscious effort to link the manoeuvre, engineer, and artillery plans on the ground, the Commander's intent is rarely achieved.

**Engagement Area Selection.** While the BG will select the relative location of the EA and supporting obstacle group, detailed siting and design remains a Company responsibility. The IPB graphics developed at BG HQ should be pushed to Company level well before issue of the Operations order. The MCOO should already identify Company sized mobility corridors into the Company Area of operations (AO), and serve as a start point for further planning and refinement. If the MCOO is not available, the Company Commander should be able to make use of the engineer's terrain analysis expertise in order to help identify likely enemy approaches into the sector.

**Direct Fire Weapons Array.** The location of the company direct fire assets for a given EA will depend on the

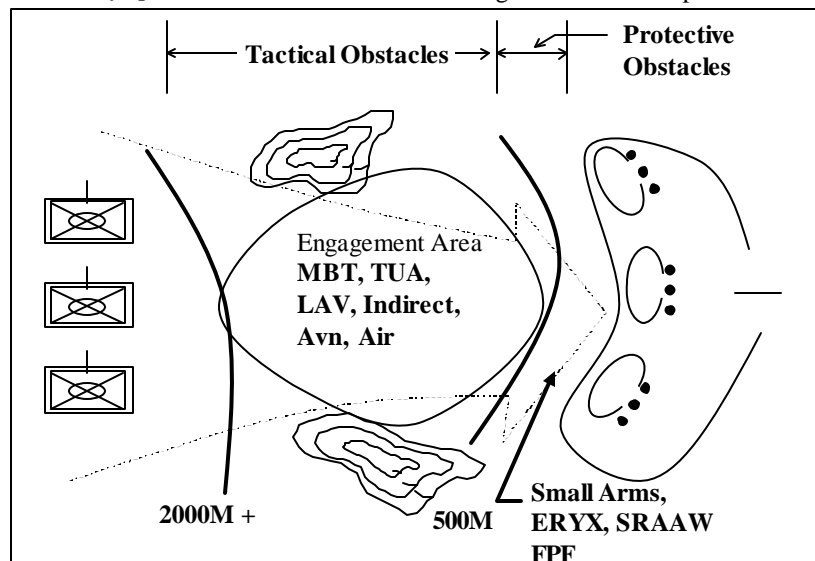


Figure 2: By the Author

ground and the desired effect. For example, if the Commander's intent is to disrupt the target along a given AA, direct fires are focused on half of the attacking force frontage while the other half is attacked by the obstacle group and indirect fires. If the Commander's intent is to fix the enemy in the EA, direct fires and obstacles are sited to cover the entire AA. The effect of the fires and obstacles in the first case is to force the attacker to piecemeal his forces into the EA, disrupt his Command and Control (C2), and force him into battle formation well forward of our leading positions. The effect of the fires and obstacles in the second case is to slow him in the EA to such an extent that there is sufficient time for our weapon systems to track, engage, and effectively strike his force. In both cases, the enemy is prevented from massing his own forces onto a small portion of the company defence.

The location of the direct fire systems is critical to the supporting engineer, as the obstacles must be sited to support this direct fire coverage. The supporting engineer cannot be allowed to site obstacles independently of this direct fire coverage. The implication is that the Company Commander must be prepared to dedicate sufficient time to briefing the engineer commander as part of his normal defensive battle procedure. In turn, the engineer commander must understand the capabilities and coverage of the weapon systems employed. Obstacles placed outside of this coverage are easily breached or bypassed and, in the end, contribute very little to the Company defence.

On the other hand, consider the combined effect of fires and obstacles. A Main Battle Tank (MBT) can move through a 1500 metre-deep EA in approximately three minutes, if unobstructed. If A armour coverage is provided by TOW II in depth, this allows for a maximum of six rounds down range (assuming that the TOW remains static and survivable throughout the entire engagement). The addition of a

minefield creates some serious problems for the tank commander. He can try to bull through; in which case he faces a 50% to 100% kill probability in the minefield, depending on the design. He can try to plough a lane through the obstacle, which adds 10 to 30 minutes in the EA. He can try to locate a bypass, which will increase his exposure time in the EA while also increasing the likelihood of him presenting his flank to our weapon systems—note that breaching and bypassing present very little risk to the tank if the obstacles are not covered effectively by fire.

The engagement criteria selected by the Company Commander will also affect obstacle siting. The criteria must be developed based on the Commander's intent. For example, a decision to have all weapon systems engage targets at maximum range may not be suitable for a fix intent. Depending on the volume of fire and density of obstacles, this approach runs the risk of losing the element of surprise and diverting the enemy away from the desired EA. The development of the fix effect requires us to convince the enemy that he can be successful in continuing the attack.

**Site The Obstacle Group.** The obstacle group assigned to support a company team is comprised of one or more individual obstacles. While the design of the individual obstacle is primarily an engineer responsibility based on the terrain (an analysis of the threat engineer capabilities and the desired effect), the location of the obstacle within the group is based on a combined arms analysis. One technique employed by the US Army to site these obstacles is the "mini-rehearsal."

The technique begins by marking the initial fire control measures on the ground, and identifying them to the supporting engineer and gunner. The commanders establish a simulated threat force from the engineer or combat team vehicles. This force drives through the EA from the enemy side on a similar frontage to that expected on contact. At least one of the long-range weapons

in each platoon strongpoint occupies a fighting position, and all participants operate from common VHF net. As the "threat" moves through the EA, they remain within the marked fire control measures identified by the Company Commander. Obstacle markers are then placed which trace the outline of the obstacle group. The weapon systems verify that the obstacle group can be covered by direct fires, and note any dead space that may require refinements to the obstacles or fire control measures. The procedure may have to be repeated for alternative and supplementary fighting positions. In broken terrain, it may be easier to mark the individual obstacles during this process rather than the group as a whole. Commanders must account for significant differences in crew observation capabilities after contact. Weapon elevations may be lower as systems are dug in, and considerable obscuration can be expected as a result of smoke and artillery fires.

This siting process may become problematic in three situations:

- ✦ more than one combat team masses fires on a given EA and obstacle group;
- ✦ long range A armour weapon systems are superimposed over the company framework while remaining under the control of BG Headquarters; and
- ✦ the Commander and his supporting arms are not able to conduct face to face coordination.

The first two situations can be handled by assigning the responsibility of developing the EA in the operations order to a single Company Commander. In the first case, the siting techniques remain the same; however, weapon systems from all company groups operate from the same VHF net during the siting process. It is also likely that the BG Commander and his Engineer Squadron Commander will have to take a more active role in coordinating fires and obstacles. In the second case, the weapon systems not under Company control are required to coordinate their

fires with the responsible Company Commander during the siting process. It is suggested that development and coordination responsibilities be spelled out clearly in the main body of the operations order. In order to deal with the last situation, the BG operations order can include an obstacle execution matrix containing detailed RV timings and locations for obstacle group siting.

**Indirect Fires.** The final piece to obstacle integration is the inclusion of indirect fires. Once again, fires are planned according to the Commander's intent. This requires a clear understanding by the gunner of how the Commander intends the battle to unfold. For example, if the Commander intends to block the enemy along a given AA, fires will focus on defeating any attempts to breach or bypass the obstacles. While it is likely that there would be a build-up of enemy forces behind the obstacle as deliberate breaching is conducted, priority of fires must remain on elements attempting to penetrate the obstacle in order to meet the Commander's intent. On the other hand, a disrupt effect employs indirect fires (using suppressive and neutralization fires on the obstacles) to discourage dismounted breaching attempts and to slow mechanized breaching of the obstacles.

**Coordinate Development.** The Combat Team Commander can expect a considerable amount of (unwanted) activity in and around his defensive position as the EA is developed. The supporting engineer will establish a secure harbour as close to the obstacle group as possible. Engineer and formation transportation may push materials into the harbour, while engineer transport moves materials from the harbour to the emplacement site. It will be natural for obstacles to be sited in open areas that can be effectively covered by fires. The implication is that the engineers will produce a large signature and will also become a high payoff target to the enemy force.

The supporting engineer force should be provided with a local security element from the over-watching Combat Team. This will include not only direct fire coverage but also access to indirect fires for obscuration or suppression, and air defence coverage if possible. While engineer units can provide for their own security, this can only be done at the cost of a significantly reduced engineer effort.

Commanders should also consider the benefits of supplementing the engineer effort with their own manpower. The addition of an infantry

platoon to obstacle emplacement activity not only reduces the "time on target" for the engineer platoon, it also provides a built in security element. This would be particularly appropriate if the engineer platoon arrives with survivability equipment that can offset this support by assisting the combat team with developing section and platoon fighting positions.

It is likely that timings for gun registration and obstacle emplacement will have to be de-conflicted on site. The Company Commander owns the terrain; it thus becomes his responsibility to ensure that fratricide is avoided. Common sense dictates that priority should be given to the gunners, as artillery and mortar rounds tend to have a disruptive effect on emplaced obstacles.

**Conduct Obstacle Hand-over.** Once the obstacle group is constructed, the engineer commander should conduct a formal hand-over with the owning unit. This hand-over should include the transfer of a copy of all graphic and written documentation, the location of all lanes through the obstacles, and the closure plan for the lanes. In addition, there may be a requirement to identify patrol lanes in order for the over-watching Company to conduct counter-reconnaissance patrols.

Observations at the US Combat Training Centers indicate that approximately 30% of all fratricides are due to friendly mine strikes. The Combat Team Commander must ensure that movement through his area of operations is tightly controlled to avoid this problem. This precaution is particularly important when conducting mobile operations. The chances of fratricide increase as combat vehicles fight their way through obstacle groups that are sited in-depth or whenever echelon vehicles move forward to conduct re-supply operations.

**Conduct Rehearsals.** Rehearsals may include anything from a simple war game to a full-scale dress rehearsal. The rehearsal may uncover weaknesses in



Figure 3: Courtesy US Army Engineer School

the original plan requiring adjustments to the defence. The Company Commander must keep in mind that changes in the manoeuvre plan need to be synchronized with the obstacle and indirect fire plans as well.

### SITUATIONAL OBSTACLES

The planning process will identify a number of enemy Courses of Action (COA). Given sufficient time, the operations staff will develop contingency plans to deal with each COA. Concurrently, the supporting engineer will develop a supporting engineer plan for each friendly COA to include situational obstacles.

Situational obstacles can be defined as "obstacles that units plan, and possibly prepare, before starting an operation; however, they do not execute them unless specific criteria are met" (FM 90-7). These criteria are developed from the intelligence staff's event template, and are associated with specific Decision Points (DP). As it is unlikely that there will be sufficient time to conduct detailed siting of the obstacle group once units are in contact, planning must be conducted in advance. Rudimentary obstacle siting can be conducted by the Commander and the supporting engineer during the reconnaissance of the potential BP. The engineer commander is then in a position to fence the obstacle site in advance (which simplifies later execution).

It should be noted that situational obstacles would generally consist of anti-tank scatterable mines due to their rapid emplacement capability. These mines may present some problems to the manoeuvre Commander. If the intent is to place the obstacle using artillery or aviation assets, an observer should be maintained over-watching the target site. Observed fire reduces emplacement time and provides warning of interdicted movement routes into the area due to misplaced mines. If the intent is to use a ground delivery system such as the US Volcano, consideration should be given

to grouping the asset with the Combat Team responsible for siting the obstacle. This co-location provides the manoeuvre commander with positive control of the system, and ensures that the system is provided with the necessary security during execution.

In both cases, execution timing is critical. If the obstacles are executed too soon, the mines may begin to self-destruct before the target enters the EA; if executed too late, the target is permitted to manoeuvre directly through the EA at a greatly increased speed, which, in turn, reduces the engagement time available to our own forces. Contingency planning must ensure that execution triggers are realistic, and that time-space considerations are accounted for.

During operations, Commanders often attempt to employ anti-tank scatterable mines to deal with *unexpected* enemy actions. Commanders must keep in mind that it is only the combined effect of fires and obstacles that have a significant impact on the target. In order to be effective, reactions to unexpected activity must still be synchronized as a combined arms team.

### CONCLUSION

The keys to successful obstacle integration can be summarized as follows:

- ✦ a thorough IPB process;

- ✦ a ruthless focus on the Commander's intent at every level;
- ✦ detailed planning and coordination at Company level as a combined arms team; and
- ✦ assigned responsibility for development of the EA to a single Commander.

The fielding of new equipment, together with the adoption of new doctrine, has placed a greater emphasis on combined arms operations. As the battlefield becomes increasingly digitized, the Commander's ability to employ a smaller combined arms team over a larger area will also increase. His ability to employ it effectively, however, will be dependent on how well the members of the team understand each other's requirements, particularly at the Company and Platoon levels. If we are serious about the concepts implied by Mission Command, we must ensure that our Platoon and Company Commanders are trained not only to execute the Commander's intent but also to interpret it. Our current obstacle integration doctrine is a key part of this approach during defensive operations.



### About the Author . . .

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## DOCTRINE AND CANADA'S ARMY

### SEDUCTION BY FOREIGN DOGMA: COMING TO TERMS WITH WHO WE ARE

*Lieutenant-Colonel Roman J. Jarymowycz, CD*

In the past decade North American armies have sycophantically adopted both *auftragstaktik* [mission command] and manoeuvre warfare in the rash conclusion that, despite *total* victory in two world wars, the Germans knew more about fighting than we did, and that briskly turning flanks was a new tactic that had somehow escaped ten generations of Leavenworth and Kingston scholars.<sup>1</sup> Sadly, the shotgun marriage of the two has created the impression that this rediscovered creed is a Germanic forte; in fact, it is best credited to the Russians. A sober evaluation will soon conclude that there is little to be learned from the German Army (especially after 1942). The true origins of manoeuvre warfare at the operational and strategic levels are to be found on the steppes of Russia, not on the heaths of Grafenwohr, Hohenfels or Sennelager.

It has become obvious to keen observers that the tenets of manoeuvre warfare are observed more closely in an academic setting than in operational practice.<sup>2</sup> Western commitment to these latest canons has proven to be more theoretical than practical. In their one opportunity to demonstrate the effects of the recent conversion, the new apostles of the manoeuvre<sup>3</sup> found themselves tactically stymied as General Schwarzkopf's headquarters imposed a myriad of phase lines, control measures, and general supervision (some have said "meddling") to ensure that their manoeuvre force responded to

directives rather than weaving haphazardly through the sands of DESERT STORM.<sup>4</sup> The de facto technological mismatch of the Iraq crusade would have been ideal classroom in which to prove new dogma, but was never given. This reluctance to prove the new doctrine should not have surprised war college scholars: in operational warfare, tactics are increasingly subject to political approval. This was as true

*Morieul Wood. That is where the Canadian Cavalry Brigade saved the day. Those wonderful fighting men held the borders of the wood and even regained ground under command of gallant General Seeley, in spite of heavy losses. Yes, they were the Royal Canadian Dragoons, the Lord Strathcona's Horse and the Fort Garry Horse. I shall never forget them.*

**Marshal Foch  
Speaking in New York,  
29 October 1921**

of President Bush's republican democracy as of the *befehls* [orders] issued from the *wolfshantz* or *Stavka*.

Nevertheless, there is little doubt that manoeuvre is here to stay—unfortunately, it is often regarded as something new, regarding which our

military literati zealously beseech required doctrinal conversion.<sup>5</sup> I have always understood manoeuvre to be a natural and logical tactical reaction. Manoeuvre warfare exists as a desirable option at the section level, the combat team and battle group level, and certainly at the divisional-corps level wherein it becomes operational warfare. Thanks to William Lind's wordsmithing skills, "manoeuvre warfare" became a trendy term in a military hungry for new ideas, and was soon touted as a panacea for all doctrinal ills. The term "manoeuvrist" became synonymous (in some circles<sup>6</sup>) with the modern, enlightened professional,<sup>7</sup> while the corollary term, "attritionist," evoked the image of crude tacticians using troops as canon-fodder. American difficulties in Vietnam, the Red Army's frustrations in Afghanistan, and the Iraqi-Iranian conflicts (not to mention that old standby, the carnage of the western front in the 1914-1918 war) were smugly adduced as examples of how not to do it. Even the *jeune école* at Monroe and Leavenworth began to look suspiciously at Grant's campaigns. Outlasting Lee, pounding at Germans through the *bocage*, or throwing ordnance at the Vietcong were decidedly wrong. Attrition warfare, it was wisely noted, wasted lives.

The truth is that manoeuvre is virtually impossible in orthodox warfare. Furthermore, the obsession with *kampfgruppen* [battle group] and *auftragstaktik* has clouded hindsight

in favour of romantic fantasy. While manoeuvre is required within minor tactics, it becomes progressively less attainable with larger numbers of troops and when the enemy demonstrates a modicum of tactical competence. A right-flanking may be possible at the patrol level—"You two guys keep their heads down, the rest of you follow me!"—but fails at the combat team–battlegroup level if the enemy deploys to protect its flanks and effects mutual support (which is why entire companies and battalions were constantly held up by a skilfully sited machinegun or strong point). As Canadian experience in Italy, Normandy, and the Scheldt demonstrated, once the enemy displays anything approaching common sense, there are no open flanks.

#### THE LIMITATIONS OF MANOEUVRE

It may be argued that operational and tactical manoeuvre is limited to the meeting engagement, the covering force battle, and (ideally) the pursuit phase after a breakthrough, when it becomes "Operational Manoeuvre." Although the distinct characteristic of manoeuvre warfare is also well demonstrated through amphibious attack, operational-level manoeuvre could only occur after establishment of a bridgehead and a subsequent breakout. D-DAY may have ducked Hitler's main defences and the bulk of the panzer reserves, yet all assault divisions had to secure their objectives frontally—as the first (and best) part of *Saving Private Ryan* demonstrates so graphically. Once the American, British, and Canadian armies got ashore there was a formidable series of *hauptkampflinies* [main battle lines] to get through, each a standard German defence of three lines, villages in webbed defence supported by armoured reserves and, in the *bocage*, mines. Given the normal *modus operandi* (no open

flanks), manoeuvre warfare must be initially directed via *befehlstaktik* [order tactics], and certainly await the result of the break-in, the dogfight, and the breakout battle. By "break-in" I mean the initial assault by infantry-heavy battle groups, which is designed to pierce the defence and force the enemy to either withdraw or commit to counter-attack. Armour at this level consists of "infantry tanks" (squadrons or regiments under command to the infantry). The "dogfight"—one of Montgomery's favourite terms—consists of the fighting-through of a defence in-depth; it is designed to secure and expand any penetration for second echelon units. The "breakout" occurs as the attacker seizes the last line of defence, overwhelms the last blocking positions, and defeats any counter-attack by the enemy's available tactical or operational reserves. Success in all three phases constitutes a breakthrough battle. Manoeuvre follows the breakthrough.

Most of modern warfare consists of variations in the demeanour and substance of the frontal attack. Ninety percent of all Canadian attacks in the Italian and Normandy campaigns were frontal, beginning with Dieppe, the invasion of Sicily, and D DAY. Operation COBRA (the much admired manoeuvre that turned Kluge's flank, created the "Falaise Pocket," and initially trapped two German armies) was only possible because General Bradley was prepared to pay the butcher's bill for a series of frontal assaults from St Lo to Avranches before he was able to unleash Patton's Third Army.<sup>8</sup>

Examples more familiar to Canadian officers are Montgomery's ill-fated Operation GOODWOOD (an attempted breakthrough battle) and its operational siblings, including Simonds' attempts to breakout south

of Caen in a series of bloody thrusts into the teeth of well entrenched German formations (Operations ATLANTIC, SPRING, TOTALIZE, and TRACTABLE). In DESERT STORM, General Schwarzkopf had to engineer a breakthrough before he could introduce his mobile force (General Frederick Franks' VII Corps). He thus ordered a frontal attack, "force-on-force," against Iraqi defences, with the aim of penetrating mined obstacles and establishing bridgeheads. The tactical victory attained was, in turn, elevated into operational victory through the introduction of an armoured force. DESERT STORM is thus the essence and only practical demonstration of manoeuvre warfare at the operational level.

I will continue to argue that once Operational Manoeuvre is achieved, only tanks (massed armour in balanced all-arms groupings) are capable of elevating a tactical victory into an operational success. Only an armoured corps can elevate an operational success, via the acquisition of operational manoeuvre, into a strategic victory. The panzer breakthrough at the Ardennes led to Dunkirk and the fall of France in 1940. Operational manoeuvre by panzer corps in BARBAROSSA in 1941 led to the encirclements at Minsk, Smolensk, and Kiev; thus knocking Ukraine, Latvia, Lithuania, and others out of the war, forcing strategic economic redeployment, and enabling the battle of Moscow (a political, strategic objective) to be fought. Middleton's Corps and, in particular, the bold use of the 4th US Armored Division during Operation COBRA in 1944, allowed the 90th Infantry Division to meet Maczek's *pulks*<sup>9</sup> at Chambois and close the Falaise Gap. Slamming the door north of Argentan resulted in the withdrawal of German forces to the Rhine and the liberation of France and Belgium.

Western armies (particularly those in North America) have demonstrated a natural cultural affinity for anything but *auftragstaktik*. A dispassionate evaluation of western campaigning (indeed, any modern or ancient battles, save Leuthen and Cannae) proves the simple fact that attrition precedes manoeuvre. This assertion is neither new nor revolutionary,<sup>10</sup> yet it seems to have escaped the doctrinal deTorquemadas in our midst, who preach the catholicity of tactical dogma from Germanic scripts. An adequate study of manoeuvre warfare begins with Tukhachevskii and ends on the north German plain in 1945. The tools of study are Rokossovsky, Zhukov, and, specifically, the *Soviet Strategic Offensive*, with its addendum ranging from the “one big strike” to Operational Manoeuvre Groups. *Air Land Battle 2000*’s doctrinal roots are not located in the tenets of *blitzkrieg*, but in Soviet operational planning, beginning with Budennyi’s First Cavalry group.<sup>11</sup>

In 1990, the acquisition of operational manoeuvre by the armoured VII Corps presented Schwarzkopf-Bush with the strategic opportunity of engaging the Republican Guard (the only remaining armoured force capable of operational manoeuvre and delivering a counter stroke) or advancing on Bagdad (the political objective). Destroying either would result in strategic victory and a precipitant end to the war. General Schwarzkopf’s eventual course of action might be debatable, but the end was nevertheless attained through the use of operational manoeuvre. Without armour, this end could not have been attained; this is why the Americans call it the *Arm of Decision*<sup>12</sup>. The more practical conclusion regarding manoeuvre may be to paraphrase General R.W. Grow’s observation about cavalry, to say simply, but firmly, that manoeuvre warfare is neither a tactical nor

operational procedure, but a state of mind.<sup>13</sup>

### TO WHAT EXTENT IS DOCTRINE CULTURAL?

The realization of the historical prominence of the frontal assault—remember “frontal” is just another choice in our mix of the tactical cocktail, and wasn’t *Arbela*, one of the three great manoeuvres?<sup>14</sup>—should lessen our recent predilection for it and its lurking confrere, attrition warfare. The bad press attrition has been getting from American military establishment is unfortunate, considering the fact that attrition warfare is as American as apple pie and is the key to understanding how Americans fight.

During the 1997 Militia Command and Staff Course, a New Zealand Army major posed the question, “To what extent is doctrine a reflection of a national culture?” I replied, “yes, of course; any doctrine, if it is to reflect the way we do things, must reflect a national culture, the way we talk, think, interact, and are likely to react.” “Well,” said my wise student, if that is true, “To what extent can any army adopt another army’s doctrine?” He was right, of course. We do not understand the Germans or the Russians. North American chances of actually emulating *Auftragstaktik*<sup>15</sup> are about as good as the Germans raising highland regiments, enjoying the Canadian Football League, or drinking a Lite Canadian beer.

The American hesitance to apply manoeuvre warfare or *auftragstaktik* in Iraq is rooted in their own military history and culture. US war fighters read Fuller and Liddel Hart well before the Second World War, and were well aware of the “indirect approach,” but refused to embrace it in principle. John Wood (one of the finest American divisional commanders in

the war and certainly the American’s best tank general) wrote, “Fuller and Hart are contrary to the US Army tradition set by Grant: attrition - wear the enemy down.” I will acknowledge my Jesuit past and become my own Devil’s Advocate, for it could equally be argued that the Americans can do both because of pedigree: their army was bred on far ranging operations. Sherman’s march to the sea, or Lee’s attack into Pennsylvania, were classic examples of operational manoeuvre and the *ghlibokii boi* [battle in depth]. With traditions like that in their saddlebags, American cavalry generals, given the chance, should naturally conduct a devastating and exacting pursuit.

Nevertheless, it is attrition that best reflects the American military establishment. General Schwarzkopf, despite an alleged commitment to “decentralized battlefield management,”<sup>16</sup> is more a descendant of Grant and Bradley than Lee, Stuart or Patton. The American Army’s professed conversion to *auftragstaktik* can be examined in light of that acme of Yankee blood sports, the National Football League (NFL). American football is *behfelstaktik*: plays are sent in by the coaches on every down. That is how the *Broncos* and the *Falcons* conduct manoeuvre. Baseball may be the romantic essence of competition but football is the American doctrinal heart. Canadians, with a theoretically hockey nurtured pulse, may argue they have a better chance. However, in modern war, as in the NFL and National Hockey League, there are increasingly too many whistles and too many commercial breaks.

While “manoeuvrists” pay lip service to international doctrine, they will always give way to military Bolsheviks. Manoeuvre, while applauded by the officer proletariat, will always be watched suspiciously by the attritionist old guard; tactical



Trotskyites are invariably cast out as revisionists by our own attritionist Stalinists. Manoeuvre may be the *vox populi* of staff college cadres, but it unnerves their bosses. Modern communications (the ability of political leaders and their war councils to witness the real-time movements of a single tank or a division on laptop screens fed by *JSTARS*<sup>17</sup> and satellites<sup>18</sup>) make *auftragstaktik* a practical near impossibility in the 21st century. Unless we are willing to completely purge our military intellectuals, it is time they realized this.

The Canadian military's initial haste in embracing manoeuvre warfare was, I suggest, incited from within Fort Frontenac, i.e., by the Directing Staff of the Staff College:

Yet is Manoeuvre Warfare, NATO's acknowledged military doctrine taught in Canadian war colleges or incorporated in Canada's military doctrine? It is not taught at the Canadian Land Force Command Staff College, and is not included in the latest draft of *Conduct of Land Operations—Operational Level Doctrine for the Canadian Army* (B-GL-300-001/FP-001)...more of the same, with tinkering of the peripherals..Sadly this shows a total misunderstanding of what Manoeuvre Warfare is all about.

Currently the Canadian army is seriously out of step with this teaching and would therefore find it difficult, if not impossible, to operate as part of an alliance force. This does not make sense, but what makes even less sense is for a small general purpose army, for that is what Canada has, to cling to an attrition style of warfare.<sup>19</sup>

Despite a certain initial coolness, the paper, buttressed by spirited Jedi Knight like debates in the officer's mess, served to complete a dogmatic conversion within, as Canadian Land Force Command and Staff College hastened to stifle any reference to attrition and espouse the tenets of manoeuvre. This move may eventually be seen as rash. It begs the question, "what is Canadian doctrine?" And by that I mean, "what is Canadian military culture, and is there a distinct way we do things?" It has been argued we have a chameleon-like identity that is multifaceted (some would say psychotic). I reject the implication that we have no actual autonomous doctrine, and are doomed to feed off (in turn) the writings and dictums of British and neo-German American military thinkers.

#### CONCLUSION

Of all the maxims one can introduce here, from du Picq to Napoleon, I

suspect we are safest with Shakespeare: "To thy own self be true." Traditionally, we have sought to correctly understand the international origins of doctrinal terms in the context of military history. I suggest we strive with greater diligence to understand ourselves. A comfortable familiarity with our own origins, the effect of British Colonial, American, German, and Russian warfighting dogmas on our military culture, will better predispose us to both define and inculcate our future military needs. The regard given to Tukhachevskii and Mainstein can easily oblige a thorough grounding in Currie and Simonds.

The war-fighting doctrine developed in the Canadian Corps during First and Second World Wars formed the basis, the doctrinal principles, of what we are today. This basis is being eroded by a misinterpretation of foreign doctrines and a disquieting readiness to believe that others may be more professionally creative than we are. This is not completely true now, but may soon be. Caveat emptor.



#### About the Author . . .

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#### ENDNOTES

1 Despite American influence on NATO via FM 100-1 and FM 100-5 (*Operations*), the British Army waited until 1991 before abandoning Montgomery's legacy as it drifted into a British Military Doctrine (BMD) for the next millennium. It is important for Canadian officers to appreciate that the British army describes Maneuver Warfare "by contrasting it with two **complementary** theories: **attrition** and **manoeuvre** [emphasis added]."

2 The over controlled advance of VII Corps (despite General Frank's presence) makes an interesting staff college study. The legacy of

Tukhachevskii may have been embraced in the spirit of AirLand Battle 2000 but is not easily discernable in tactical practice.

3 Not to be confused with the true "Apostles of Maneuver" (advocates of the tank): "men of vision, energy and determination," who included Winston Churchill, Ernest Swinton, Albert Stern, Murray Sueter, Tom Hetherington, William Tritton, and Walter Wilson. By the time the Great War ended they were joined by, Fuller, Liddel Hart, Ricardo, Hobart, Martel and scores of acolytes.

4 Nevertheless, Schwarzkopf is portrayed in some circles as an anointed follower of de Czege, Lind, Boyd et al: "...the doctrine of the maneuverists and the Jedi Knights would find its greatest champion in General Norman Schwarzkopf." Peter Cary, Brian Duffy, Joseph L. Galloway, *Triumph Without Victory—The History of the Persian Gulf War* (Toronto: Random House, 1992), p. 164.

5 With continued sadness I note the quickness to abandon national parlance, and effect the term "dokTRYnal"—which is odd, since we don't talk about easing springs in the "urynal." However, there are brave hearts left: "Unless the receiving armies are willing to reconsider what their leaders believe to be most important in battle, revamp their educational systems from basic training to staff colleges, and formally institute general staffs, then NATO must accept that this experiment is doomed from the outset" (Lieutenant Colonel Chuck Oliviero, "Trust, Manoeuvre Warfare, Mission Command and Canada's Army," *The Army Doctrine and Training Bulletin*, Volume 1, Number 1 (August 1998), p. 26.

6 Daniel Bolger, "Maneuver Warfare Reconsidered," quoted in Richard D. Hooker Jr. editor, *Maneuver Warfare* (Novato: Presidio, 1993), p. 26; John F. Antal, "Thoughts About Maneuver Warfare" (Hooker), pp. 57-58; Hooker, "Ten Myths About Maneuver Warfare" (Hooker), pp. 77-78; and James McDonough, "The Operational Art: Quo Vadis?" (Hooker), pp. 107-108 all note how "attritionists" have been marginalized by the *jeune école*.

7 Note that Leonard derides the AirLand Battle, which, despite his protests, contains the essence of operational manoeuvre: "Napoleon said, 'In war, the moral is to the material as three to one.' Hence we are left with AirLand Battle: a 25 percent solution!" Robert Leonard, *The Art of Maneuver, Maneuver Warfare Theory and AirLand Battle*, (Novato: Presidio 1991), p. 139.

8 See Bradley, Stacey, Wilmot D' este but particularly R.F. Weigley, *Eisenhower's Lieutenants* and Martin Blumenson, *The Battle of the Generals* for a more critical evaluation of Montgomery vs. Bradley.

9 *Pulk* (pronounced "pook") is the Polish term for "regiment." Major General Maczek's *Polska Divisia Pancerna* [First Polish Armoured Division] was the only division under Simonds to attain operational manoeuvre, and actually practice maneuver warfare. Kitching's 4th Canadian Armoured was doomed to a series of failed frontals. Terry Copp disagrees; Jack Granetstein, Desmond Morton and Jack English appear unaware.

10 J. Erickson, L. Hanset, W. Schneider *Soviet Ground Forces—An Operational Assessment* (London: Croom Helm, 1996); W.C. Frank Jr and P.S. Gillette, *Soviet Military Doctrine from Lenin to Gorbochev 1915-1991* (Westport: Greenwood Press 1991); H.F. Scott and W.F. Scott, *Soviet Military Doctrine* (London: Westview Press, 1988); H.F. Scott and W.F. Scott, *The Soviet Art of War* (Boulder: Westview, 1982), p.18; R.Simpkin, *Deep Battle: The Brainchild of Marshal Tukhachevskii* (London: Brassey's, 1982); Scott, Harriet, Fast and W.F. Scott, *Soviet Military Doctrine: Continuity, Formulation, and Dissemination* (Boulder: Westview, 1988); Scott et al eds, *The Soviet Art of War, Strategy and Tactics* (Boulder, Westview, 1982); D.T. Yazov, "On Soviet

Military Doctrine," *RUSI Journal*, 134 (Winter 1989); P.A. Rotmistrov, *Vremya I Tanki* (Moscow: Voenizdat, 1972); and A.Kh. Babadzhanyan, *Tanki I Tankovyye* (Moscow: Voenizdat, 1980). I would especially recommend Colonel David Glantz's recent writings.

11 Actually, the Tsaritsyn—First Cavalry Group, a cadre associated with Budennyi and the classic "proletarians to horse" fantasy; everybody (Budennyi, Tukhachevskii, Zuhov, even Stalin) was a member. Dr. Steven Merritt, UCLA, correspondence 15 November 1996. In fairness, our Endnote adopted reference, *Generic Enemy (Basic Forces)* B-SJ-100-002/PT-006 (PT-007 and PT-008), does contain excellent references to the Soviet (GENFORCE) Operational Art, but these are too often brushed aside in our haste to (logically) deal with a more modern enemy and our extremely limited operational abilities.

12 "Warfare is an art in which clarity of appreciation and boldness of decision constitute essential elements. An art which could find success only in mobile operations" (Eric von Manstein). A disproportionate number of US Army *philosophes* unfortunately prefer the study of German generals to Wood, Grow, Middleton, and Patton.

13 Major General R.W. Grow, commander 6th US Armored Division and one of the US Army's lost *philosophes* of manoeuvre: "Cavalry is a state of mind" (the Grow Papers, USAMHI, Carlisle).

14 The complete trio of classic manoeuvres is: Arbela (Alexander the Great: an attritional frontal with envelopment of a flank), Cannae (Hannibal: the double envelopment) and Leuthen (Frederick the Great: the flanking attack). See Alfred H. Burne, *The Art of War on Land* (London: Methuen, 1944) and J.F.C. Fuller, *The Generalship of Alexander the Great* (New Jersey: Rutgers, 1960).

15 "It has always been the particular forte of German leadership to grant wide scope to the self-dependence of subordinate commanders—to allot them tasks which leave execution to the discretion of the individual. The German method is really rooted in the German character...[which] finds a certain pleasure in taking risks" (Field Marshal Erich von Manstein, *Verlorene Siege* [Bonn: Athenaum-Verlag, 1955], p. 383).

16 General Schwarzkopf's command initially committed itself to "mission type orders," but events soon revealed that "Schwarzkopf's staff synchronized the entire plan...an even more important reason his commanders must adhere strictly to the plan" (Peter Cary et al, pp. 346-347).

17 Joint Surveillance Target Attack Radar System, an airborne surveillance system.

18 "... the AWACS aircraft downloaded its constantly changing picture of the air campaign, the JSTARS aircraft was equipped with two electronic down-links (one to the Air Force, the other to the Army) that provided real-time information on troop movements, enemy deployments, and the like . . . . Like Colin Powell, George Bush had a secure red telephone on his desk that connected him directly with Schwarzkopf . . . 7,000 miles away" (Peter Cary et al, pp. 347, 394).

19 Lieutenant-Colonel P. Wilkinson, RA, "Whither Canadian Military Doctrine?" (unpublished monograph: Kingston, 1992), p. 5. Wilkinson's reflective criticisms were sniffed at by some. His musings, despite being good-natured dig, were, at times, cutting: "Can an army which is overburdened with senior officers, headquarters, ruled by a committee from Montreal, and whose cavalry officers have such dash, panache and élan that they wear bicycle safety helmets, nay even ride bicycles in preference to more worthy steeds, cope with manoeuvre warfare?" By 1999, most of Wilkinson's points had been corrected by the Land Force and Fort Frontenac's second floor *weise Eulen* [white owls].

## GENERAL SIR ARTHUR WILLIAM CURRIE

### A COMMON GENIUS FOR WAR

*Captain Roger R. Barrett*

Arthur Currie was a citizen soldier in the militia and a businessman prior to the First World War. In just four years, however, he would rise from relative military obscurity to command the Second Canadian Brigade, the First Canadian Division, and the Canadian Corps. While in command of the corps, Currie would post an unparalleled string of successes. He would, time and again, succeed where others had failed. Indeed, the Canadian Corps under Currie's direction would become the Allies' elite-fighting organisation. The question is, then, how did this amateur soldier manage such tremendous success as a commander, while most of the Empire's 'professional soldiers' failed?

It will be argued herein that, through battle experience, General Sir Arthur Currie developed a common genius for war as defined by Clausewitz.<sup>1</sup> I shall attempt to prove this argument by measuring Currie against two of Clausewitz' fundamental concepts as I interpret them. The first is military genius. When speaking of genius in Currie's case, I do not mean that his was an intellect without bounds; rather, Currie's genius was 'common' in the military sense in that he possessed the cumulative qualities (intellect, courage, resolution, energy, firmness, character, and tenacity) that enabled him to achieve remarkable success in war.<sup>2</sup> The second concept deals with Clausewitz' assertion that: "War is the province of chance."<sup>3</sup> This inherent uncertainty tends to unnerve the rigid of mind and ruin any inflexible or doctrinal plan. Currie, an "amateur" unencumbered by organisational and tactical dogma, was able to cope superbly with the uncertainties of modern warfare. Furthermore, his cumulative battlefield experience was the best available teacher: it represented the most current and



**Figure 1: Lieutenant-General Sir Arthur Currie, General Officer Commanding Canadian Corps, 9 June 1917 - 9 August 1919.** (Courtesy National Archives of Canada)

pertinent of contemporary warfare instruction. The result was that Currie possessed a common genius for war that directly translated into command excellence.

#### LEARNING COMMAND

The apprenticeship of Currie as a commander occurred during the first two bloody years of the war. Marked by static trench warfare, this period (one would assume) would not be fertile ground for indoctrination in the dynamics of war or the art of command. Yet, it was during this period that Currie learned his trade. In April 1915, Brigadier General Currie, never having commanded more than 400 men in peace, commanded a 4000-man brigade in war.<sup>4</sup> The Second Battle of Ypres served as Currie initiation to war.

During this battle, he gained first hand experience of the inherent chaos and uncertainty of war. Nevertheless, he was successful, displaying initiative, flexibility, and resolve. His efforts solicited much praise. T.C. Irving remarked:

The coolest and most common-sensed man in the whole Canadian Army Corps and if there is one man above another who should be given credit for holding back the Germans at Ypres, it is Currie.<sup>5</sup>

The following year, Major General Currie, as commander First Canadian Division, lead his division at Tor Top and Mount Sorrel. There he learned how to synchronise artillery with advancing infantry, how to concentrate firepower, and how to organise his brigades into stronger fighting formations. At the Somme, Currie recognised the strengths and (more importantly) the weaknesses of the current set piece attack doctrine. Indeed, after the battle, Currie would conclude, "the getting of the Trench does not mean the getting of the Objective. We must not only clear the enemy out of the Trenches, but we must control all of his approaches to it[sic]."<sup>6</sup> Currie would carry many lessons with him as a result of his experience at the Somme.

#### SYNTHESISING A COMMAND APPROACH

In early January 1917, Currie and other senior British officers arrived at Verdun for a battlefield study. After the visit Currie wrote a tactical analysis of the Verdun battles, which would become future doctrine for the Canadian Corps.<sup>7</sup> He then presented his ideas to the corps headquarters in the form of lectures. He spoke of the primacy of artillery. Specifically, he posited that the infantry

required intimate artillery support onto their objective as well as counter battery fire. Along with these traditional roles, he suggested that artillery fire should include non-lethal tasks such as smoke and gas obscuration. He also favoured elaborate harassing fire plans to disrupt the enemy's rear, and a non-predictable artillery timetable so as to maintain surprise. With respect to the infantry, he would comment, "Our Troops must be taught *the power of manoeuvre* [Currie's italics]."<sup>8</sup> He rejected outright the British tactic of attacking in waves. Accordingly, he recognized the emphasis that the French put on platoon and company level tactics. He embraced this concept, realising that the infantry needed better flexibility and believing that the platoon was the key.<sup>9</sup> Concomitantly, he realised the import of engineers with respect to battlefield mobility, that is, creating the winning battlefield environment. He would also champion the importance of accurate maps, and demand that they be issued to all commanders down to the non-commissioned officer level. Moreover, he was adamant that natural features, and not trench lines, should be the objectives of attacks. Finally, he would advocate common sense: there was no point in making an attack unless you were reasonably assured of success.<sup>10</sup>

By today's standards, these ideas may not seem very impressive; however, in their time they were quite revolutionary. Herbert Wood wrote that Currie's advocacy of platoon tactics finally ended "the bankrupt techniques of sending waves of individuals towards a mere spot on the map selected by the staff."<sup>11</sup> Currie's understanding of the requirement for fire and manoeuvre, set in the context of the time, illustrates the development of his common genius for war. Indeed, as Swettenham points out, "It is perhaps significant that no later corps attack, when planned by Currie, was ever unsuccessful."<sup>12</sup>

#### APPLYING A COMMAND APPROACH

Currie learned about the plan to capture the impregnable Vimy Ridge in early February 1917. Lieutenant-General Sir

Julian Byng's plan called for the Canadian Corps to field all four of its divisions simultaneously for the first time in the war. Byng's plan called for exhaustive preparations and detailed rehearsals on mock positions. There would be extensive engineer work to ensure the flow of supplies and ammunition. The artillery support would be unequalled: each shell would have a specific target; over a million in total would fall by the time the battle ended. The counter-battery fire would kill 83% of the German guns before the attack was launched.<sup>13</sup> The infantry would be reorganised into self-contained, platoon-sized fighting sub units, each containing an officer, three sergeants, and sections of riflemen, bombers, grenadiers and Lewis gunners.<sup>14</sup> While there is no question that Byng developed the winning plan for Vimy Ridge, it is impossible to ignore the fact that virtually every tenet of his plan was previously elucidated in Currie's doctrinal recommendations to the corps headquarters in January.<sup>15</sup>

Of course, the battle for Vimy Ridge now enjoys epic status in our country. At Vimy the Canadian Corps advanced 2.5 miles in rapid succession, capturing the ridge as well as 54 guns, 104 trench mortars, 124 machine guns, and over 4000 prisoners.<sup>16</sup> Significantly, Currie eclipsed his peers as his division on the right flank outperformed all others. British historian Kenneth Macksey marvelled at the First Division's feat: "Only rarely does a battle go to plan, but here on the right side of the Canadian attack it can be truthfully stated that everything went like clockwork."<sup>17</sup> Sir Henry Horne would send Currie a message calling his division "The pride and wonder of the British Army."<sup>18</sup> Vimy would be the last major battle in which Currie commanded the First Division.

#### PASSCHENDAELE—BLOODY LOYALTY CHECK

On 6 June 1917 Currie was informed that he would take command of the Canadian Corps. At 41 years of age, he was the youngest Lieutenant-General and the first non-regular officer to reach such high command.<sup>19</sup> In the month of September,

he received his first significant assignment.

The Commander in Chief of the British Expeditionary Force (BEF), General Sir Douglas Haig, had repeatedly launched British and Australian divisions at Passchendaele Ridge with little success, while incurring incredible losses. Haig was obsessed with the idea that Passchendaele had to be taken. So Haig, according to both Swettenham and Dancocks, turned to Currie to salvage the bloody campaign and his (Haig's) professional reputation.<sup>20</sup> Currie was irate. He knew the area, and had been following the reports. He protested strenuously to Haig, but to no avail. After returning to his headquarters, he raged in front of his astonished staff:

Why? What's the good of it? Passchendaele! A name for a lot of mud and grief, for a lot of crack brain fools in London to play with! What do they care? Do they get killed? Or wounded, or choked in the mud? What's the good of it? Let the Germans have it! Rot in the mud! There's a mistake somewhere. It must be a mistake. It isn't worth a drop of blood.<sup>21</sup>

Currie reluctantly assumed the grim task at hand, but not without conditions. He refused to serve under General Gough, whom he thought incompetent. Instead, his corps would replace the Australians in General Plumer's Second Army. In addition, he demanded that he be provided sufficient time to properly prepare his attack. The battlefield conditions were horrific; resembling a moonscape made of mud, where both men and artillery pieces sank never to be seen again. Currie realised immediately that conditions had to improve prior to any attack being launched. Therefore, his corps engineers began the Herculean task of rebuilding roads, digging drainage ditches, constructing new gun platforms and even a light rail line, while being continuously exposed to German fire.<sup>22</sup> Currie's plan consisted of four limited attacks, which would see the infantry advance behind a wall of artillery. Further, he would utilise wireless communications



to ensure the shelling did not outstrip the infantry.

Dancocks posits that the British did not seriously believe that Currie's Canadians could succeed where all other Empire troops had failed.<sup>23</sup> The Canadians, however, did succeed. The operation started on 26 October, with the Canadians finally managing to secure the top of the ridge on 10 November. Yet again, Currie and the Canadians had achieved the impossible. The casualty rate, however, was appalling: 15 654 men were killed or wounded—oddly enough, almost exactly the number that a horrified Currie had predicted when he so vehemently protested six weeks previous.<sup>24</sup> By this time, it had become clear that Currie's doctrine of limited set piece synchronised attacks provided the operational means for Haig to achieve success in his de facto strategic goal of attrition.<sup>25</sup>

#### PROFESSIONALISM

As 1917 drew to a close, Currie engaged in his next battle, one of policy. Due to their staggering losses, the British were seriously short of manpower. Their solution was to reduce the size of their divisions from twelve to nine battalions, using the men from the three disbanded battalions to bring the remainder up to strength. Naturally, the British wanted the Canadians to follow suit. For the Canadians, this course of action would involve dividing the existing corps in favour of an army of two smaller corps. General Turner and Sir Edward Kemp (both based at the Overseas Military Forces of Canada in London) seemed quite amenable to the change. However, they would learn that the Prime Minister was not keen on the plan, and that Currie was dead set against it. Currie believed that there were not enough officers with sufficient experience and leadership ability to fill the command and staff positions required for two corps. He felt that such a move would degrade the corps' combat efficiency, which, in its current form, was second to none. Accordingly, he offered an alternative: instead of increasing the staff, he suggested increasing the establishment

of each battalion by 100 men, thus increasing each division's strength by 1200 men.<sup>26</sup> Currie's decision, coming as it did at the expense of a promotion and army command for himself, is perhaps the quintessential example of selfless professionalism. Indeed, Andy McNaughton wrote that Currie was "one of very few men... who could have made a decision entirely on the basis of the efficiency of Canada's contribution to the war..."<sup>27</sup>

#### THE LAST HUNDRED DAYS— COMMAND EXCELLENCE

The battle of Amiens, which commenced 8 August 1918, marked the beginning of the famous "Last Hundred Days." During this period, the Canadian Corps led the British Expeditionary Force in a continuous series of offensives that culminated in the liberation of Mons just prior to the Armistice. It is also during this period that Currie's common genius for war gained prominence. The success of Currie's attack doctrine was realised in that it turned the hitherto successful

German elastic defence against itself by creating killing grounds, which disrupted the relentless German counter-attacks, in front of Allied positions.<sup>28</sup> Amiens, J.F.C. Fuller would later conclude, "was one of the decisive battles of the Western World." The Canadian and Australians "matchless attacking troops"<sup>29</sup> fought side by side in concert with tanks to push the Germans back eight and seven miles, respectively. The Canadian Corps alone captured over 5000 prisoners and 161 guns, during the first day of battle.<sup>30</sup> However, as the Germans reinforced within twenty-four hours, it became apparent to Currie that the Allies could fall into the myopic, operational stalemate that marked the three previous years of fighting. Accordingly, Currie managed to influence the operational level of war on the entire Western Front by convincing General Sir Henry Rawlinson and Field Marshall Haig to reject Marshall Ferdinand Foch's calls for additional tactical operation around Amiens without considering the larger operational reality.<sup>31</sup>



**Figure 2: Lieutenant-General Currie (seated front row, centre), with his Canadian Corps Headquarters staff officers. Flanking Currie are his two key staff officers. On Currie's left is the Brigadier-General, General Staff, Brigadier-General P.P. de B. Radcliffe; on Currie's right is the corps' Deputy Adjutant and Quartermaster General, Brigadier-General G.J. Farmer. Both Radcliffe and Farmer were British officers. (Courtesy National Archives of Canada)**

As a result, the corps moved on and re-focused as Haig selected the Canadians to spearhead the BEF attack towards the German's strongest defence, the Drucourt-Queant (D-Q) Line. Currie would demonstrate his mental flexibility, departing from the normative dawn attack and attack at night. The Germans were taken completely by surprise. By breakfast, the Canadians were in Monchy; by suppertime, they had destroyed the Germans' two outer defensive lines.<sup>32</sup> As August drew to a close, the corps had captured the Frenes-Rouvroy Line. They now faced their main objective, the Drucourt-Queant Line. The significance of capturing the D-Q Line can well be appreciated when one reads Haig's admission in his personal diary: "If my attack is successful, I will remain C in C. If we fail, or our losses are excessive, I can hope for no mercy!"<sup>33</sup> Once again, with his professional career hanging in the balance, Haig would rely on Currie. Currie's corps did not fail him, as they punched through the line with all three assault divisions.<sup>34</sup> The pace of advance, however, was now overwhelming some of Currie's division and brigade commanders, as his open warfare concept was now a reality. He managed control in this new, fast-paced type of warfare by issuing less detailed *auftragstaktik*<sup>35</sup> style orders and by dictating tempo. Quite simply, his formations manoeuvred and stopped where and when he wanted them to, independent of German defences and intentions.<sup>36</sup>

Less than two weeks later, the Canadians were called upon to storm the Canal du Nord, and attack Cambrai. Once again, Currie displayed his command genius, as he staked his career (and perhaps the very existence of his corps) on a daring plan. During a reconnaissance of the corps' assigned frontage, he discovered he was faced with a canal that had overflowed its banks creating an impassable marsh. He also discovered a 2000 yard stretch of unfinished and dry canal further to the south. Currie's plan, as Granatstein and Morton state, broke most of the rules of sound generalship.<sup>37</sup> Yet, it turned out to be a masterpiece of audacity and manoeuvre. Currie's plan entailed shifting his front to the south in

order to channel 150 000 men, guns, tanks, and support vehicles through a 2600-yard defile. Once through, he would spread them out in a 10 000 yard fan to the north and east, rolling up the Marquion Line and enveloping Bourlon Woods, thus isolating Cambrai.<sup>38</sup> The plan would demand skilful leadership, strict discipline, and precise co-ordination and timings. The requisite artillery support would be incredibly complex, with barrages moving forwards, backwards, and sideways.<sup>39</sup> The danger was obvious: channelling three divisions into such a natural defile risked exposing them all to extermination in quick order. In short, failure would result in the destruction of the Canadian Corps and, consequently, the end of Currie's career.<sup>40</sup> First Army commander Horne was mortified when he was briefed on Currie's plan; he appealed to Haig and Byng in an attempt to kill it. Neither Haig nor Byng could dissuade Currie.

At 0520 hrs, 27 September the attack was launched. By the end of the day the corps had successfully captured the Canal du Nord and the tactically key Bourlon Wood. It was yet another Canadian feat, and a testament to Currie's brilliance. The diarist of the German 188<sup>th</sup> Regiment, the Bourlon Garrison, wrote, "on this day we buried all of our hopes for victory."<sup>41</sup> During the next four days, the Canadians faced relentless counter-attacks, due in large part to the slow progress of Byng's Third Army. Although the Germans hurled a total of 13 divisions and 13 independent machine gun units at the corps, the Canadians succeeded in fending off the German onslaught.<sup>42</sup> As Schreiber opines, Canal Du Nord was Currie's operational masterpiece, the culmination of his education as a General.<sup>43</sup> With the Germans slowly withdrawing towards Belgium, the final chase was on. Currie's Corps would lead the pursuit to Valenciennes and, finally, to Mons in the early morning hours of 11 November 1918.

## CONCLUSION

Sir Arthur William Currie developed, through battlefield experience, a common

genius for war. Indeed, he was one of the few generals that, despite the milieu of constant uncertainty, learned how to learn from war. He combined the leadership attributes of intellect, courage, resolution, energy, firmness, character, and tenacity, to achieve remarkable success in war. The Canadian Corps under Currie's command never failed to seize its objective, never lost a single artillery piece, and never relinquished a piece of ground, once consolidated. As Currie himself notes, during the last 100 days the Corps engaged and decisively defeated over 50 German Divisions, approximately one quarter of the German Army on the Western Front.<sup>44</sup> It is truly remarkable that Currie and his staff were successful, without exception, in planning and directing the corps through open warfare operations from Amiens to Mons, over 80 miles of enemy occupied territory taken in rapid succession in just 96 days.<sup>45</sup>

General Sir Arthur Currie did not possess a special or divine gift. Rather, he possessed an analytical mind, which was uncluttered by dogma, and willing and very able to learn through experience. Currie was able to synchronise the many disparate parts of the corps, bringing them together as a unified force that was stronger than the sum of its parts.<sup>46</sup> Finally, Currie was courageous enough to reject current antiquated doctrine, and to develop his own doctrine, which would be the blueprint for the Canadian Corps' unequalled success. The general who possessed a common genius for war was always successful, whether at Vimy, at the tragedy that was Passchendaele, at Amiens, at the Drucourt-Queant Line, at the Canal du Nord, at Cambrai, or at Mons. If one were obliged to summarize General Sir Arthur Currie's achievements, one could do worse than Lord Moran's words: "The true measure of success in war is success."<sup>47</sup> Indeed.



### About the Author . . .

*Captain Roger Barrett holds a BSc in Physics from the University of Toronto, and has recently commenced a MA in the War Studies Program offered by The Royal Military College of Canada. He has completed two regimental tours with the Second Battalion, The Royal Canadian Regiment, and one extra-regimental tour in Ontario. He is a graduate of the Land Force Command and Staff Course. Captain Barrett is currently attending a year long French course.*

## ENDNOTES

- 1 C. Von Clausewitz, *On War* (Wordsworth Editions Limited, 1997), p. 40.
- 2 Von Clausewitz, p. 40.
- 3 Von Clausewitz, p. 43.
- 4 H.M. Urquhart, *Arthur Currie: The Biography of a Great Canadian* (Toronto: J.M. Dent & Sons, 1950), p. 37.
- 5 D.G. Dancocks, *Sir Arthur Currie: A Biography* (Toronto: Methuen, 1985), p. 54.
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- 10 Dancocks, p. 87.
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- 13 Dancocks, p. 89.
- 14 Dancocks, p. 89.
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- 16 D.J. Goodspeed, *The Road Past Vimy: The Canadian Corps, 1914-1918* (Toronto: Macmillan, 1969), p. 91.
- 17 Dancocks, p. 92.
- 18 Dancocks, p. 99.
- 19 Swettenham, p. 170.
- 20 Dancocks, p. 106, and Swettenham, chap 10 "Currie Retrieves Haig's Reputation From The Passchendaele Mud."
- 21 Dancocks, p. 110.

- 22 D. Morton and J.L. Granatstein, *Marching to Armageddon: Canadians and the Great War 1914-1919* (Toronto: Lester & Orpen Dennys, 1989), p. 167.
- 23 Dancocks, p. 113.
- 24 D. Morton, *A Military History of Canada* (Edmonton: Hurtig Publishers, 1990), p. 150.
- 25 Schreiber, p. 12.
- 26 Dancocks, p. 129.
- 27 Dancocks, p. 130.
- 28 Schreiber, p. 12. Direct quotes from Edmond's *First World War British Official History*.
- 29 Swettenham, p. 209.
- 30 Schreiber, p. 50.
- 31 Schreiber, p. 55.
- 32 Dancocks, p. 159.
- 33 Swettenham, p. 216.
- 34 Dancocks, p. 162.
- 35 *Auftragstaktik* is the German term for "mission style" orders, or, more broadly, directive control in the German manoeuvre theory concept. Essentially, the premise is for the commander to issue a mission and intent, vice a detailed checklist, for orders. *Auftragstaktik* is designed to increase the subordinate commanders' freedom of action; inherent in this is accepting risk and empowering subordinates to exercise their initiative. This concept was arguably quite foreign to the majority of commanders in the BEF. Currie and some of his subordinate commanders shifted to this type of orders or concept more out of expediency than an actual understanding of German theory. For more on *auftragstaktik* see Lind, *The Maneuver Warfare Handbook*; Simpkin, *Race to the Swift*; and Leonard, *The Art of Maneuver*. Of course *auftragstaktik* can also be found in the current Canadian Land Force 300 series doctrine publications.
- 36 Schreiber, p. 92.
- 37 D. Morton and J.L. Granatstein, p. 223.
- 38 Swettenham, p. 221.
- 39 D. Morton and J.L. Granatstein, p. 223.
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- 41 D. Morton and J.L. Granatstein, p. 226.
- 42 Dancocks, p. 165.
- 43 Schreiber, p. 110.
- 44 Dancocks, p. 174.
- 45 A.M.J. Hyatt, *General Sir Arthur Currie: A Military Biography* (Toronto: University of Toronto Press, 1919), p. 119.
- 46 See Schreiber's introduction and first chapter. He speaks of Currie's command and leadership ability in terms of a musical metaphor—the great maestro.
- 47 Lord Moran, *The Anatomy of Courage*, First American Edition, (Boston: Houghton Mifflin Company, 1967), p. 194.



## THE STAND-UP TABLE

### COMMENTARY, OPINION AND REBUTTAL

#### **Rebuttal to Comments by Lieutenant-Colonel Mike Cessford in his Article "Some Thoughts on an Army for the 21<sup>st</sup> Century," in ADTB Vol. 2, No. 1, February 1999.**

*A final word on this debate from Captain Lee Hammond of the Artillery School:*

I would like to congratulate all the contributors of both the articles and the stand-up table comments in the February 1999 issue of the *Army Doctrine and Training Bulletin*. In my view, many of the comments offered represented progressive and thought-provoking ideas that should be seriously considered by our senior commanders.

It is in this vein that I once again feel compelled to respond to some of the suggestions offered by Lieutenant-Colonel Cessford in his paper "Some Thoughts on an Army of the 21<sup>st</sup> Century." As an Artillery Instructor Gunnery, I found myself in complete agreement with many of the ideas expressed by Lieutenant-Colonel Cessford on the importance of the three dimensional battle field and, in particular, the role of the deep battle. A review of the recent literature on US Army war-fighting experiments and command post exercises indicates that the deep battle is increasingly becoming a critical aspect of land warfare. Indeed, this should not surprise us since even in the Second World War the Allies practiced a form of deep battle using air power.

What has changed since then, however, is the army's ability to prosecute the deep battle with integral resources. As Lieutenant-Colonel Cessford correctly points out, unmanned areal vehicles (UAVs), the Q47 Firefinder II Radar,

Electronic Warfare assets, and even the Coyote all mean that the Army can find targets when they are at a significant distance from the Forward Edge of Battle Area (FEBA). All these resources contribute towards our ability to conduct information operations, which, as Major Bowes points out in his article ("Information Operations: Whither Mission Command," also in Volume 2, Number 1), is the way of the future. Unfortunately, information operations, especially concerning the deep battle will be somewhat of a fallacy within the Canadian Army until such time that we acquire the sensors to give us the information. Thus, I am in complete agreement with Lieutenant-Colonel Cessford on the importance of Canada obtaining these capabilities.

Another suggestion by Lieutenant-Colonel Cessford is that Canada gain the capability to "service" targets in the deep battle by acquiring rocket artillery. I don't think there is a gunner in Canada that would disagree with that sentiment, since we would all like to have something like Multiple Launch Rocket System (MLRS) in our arsenal. However, it is the suggestion of how to accomplish this worthwhile goal where my views differ from Lieutenant-Colonel Cessford. Trading tube artillery for rocket artillery is, in my view, trading apples for oranges. Although rocket artillery possesses all the attributes

described by Lieutenant-Colonel Cessford, it also lacks some of the flexibility of tube artillery (Illumination, ammo types on demand, and especially speed of response). Thus, I would argue that we need to look beyond tinkering with the artillery alone.

In his comments on the LAV III, Capt O' Leary ("The 21<sup>st</sup> Century Infantry Company," Volume 2, Number 1) points out that the introduction of this vehicle could and should force a complete examination of how the Infantry does business. Taking these comments to their logical conclusion means that, at the army level, the same re-examination should be taking place *vis-à-vis* all the new technologies available and how Canada intends to fight the manoeuvre land battle. Thus, in examining the current order of battle of the Canadian army (Regular Force), we have nine infantry battalions (three of which are light battalions), three armoured regiments, three field artillery regiments, one Total Force air defence regiment, three combat engineer regiments, an engineer support regiment, and combat service support elements. The question is; is this balance correct for the modern age?

Such famous commentators as Major-General (Retired) Lewis Mackenzie often state that there are more Toronto City Police Officers than infantrymen in the whole Canadian army. While it is recognized that General Mackenzie's point is that the army is a small organization, it might also be inferred that an army is the sum of its infantry battalions. Lieutenant-Colonel Cessford seems to feel that an army is more than just its infantry battalions

when he emphasizes the role of the deep battle. Furthermore, Lieutenant-Colonel Cessford states that we should accept some risks in certain areas. I agree; only it is at the army level where these risks should be taken, not just within the artillery. In my view, the first target for a serious consideration for a re-allocation of manpower should be the light infantry battalions (LIB). In the modern age of manoeuvre warfare, it is my opinion that these units add very little capability to the Canadian army that does not already exist in mechanized battalions. Further, we currently have more manpower in the Light Infantry role than we had during the height of the Cold War. Also, does the light infantry role not seem the perfect mission for our infantry reserves? At the present time, we have approximately 2400 soldiers tied up in the LIBs. In my view, there is very little value added to the overall capabilities of the Canadian army other than a large group of keen well-trained soldiers.

Critics of above arguments will state that the creation of the LIBs was in response to manpower shortages within the infantry battalions due to their heavy peacekeeping commitments. Furthermore, pundits will also argue that these organizations are perfect for the new world order, which emphasizes peacekeeping over general warfare tasks. However, in my opinion these arguments are false for the following reasons: first, LIBs are not equipped for even the most rudimentary peacekeeping tasks (witness the Canadian Airborne Regiment's re-equipping and training requirements for Somalia), and will have to stand in on someone else's armoured personnel carriers and equipment; second, who says that our commitments to peacekeeping should always be an infantry battalion, and do our infantry battalions have to be necessarily as large if they are augmented by radars, UAVs, and Coyotes?

Therefore, regarding the utility of the LIBs, and to illustrate my point, the 10 soldiers assigned to just one light

infantry section could be manning three MLRS launchers (recognizing some more personnel would be needed behind the scenes). Does anyone doubt that these three MLRS launchers will have a much greater influence on the battle than 10 light infantry soldiers, especially if the enemy is killed 40 km before they get to the FEBA? Many infantry soldiers reading this article might think me anti-infantry. But ask them, what would they rather have when it comes to a fight? Another example is sensors like the UAVs and radars mentioned by Lieutenant-Colonel Cessford. Even if we bought these capabilities, we currently could not provide personnel for them. Should we trade guns for radars? I think not. Would not the 10 soldiers mentioned above provide greater dividends to the Canadian army manning a Q47 Radar or a UAV section? After all, manoeuvre warfare means we have to find the enemy and then kill him. Engaging the enemy when they are 40 km away is much preferable to hand-to-hand combat.

Another interesting point raised by Lieutenant-Colonel Cessford is the role of attack aviation. I agree with his criticisms of the way our tactical aviation is organized. Aviation commanders are the only commanders in the brigade or division who are not mandated to attend either the Intermediate Tactics Course program or the Land Force Staff Course (LFSC). Thus, a large number of the current Tac Hel commanders have not attended LFSC (those that do so serve more as "training aids" than real students being assessed). In short, despite the best intentions of individuals, our aviation community is not really part of the team, especially when compared to their US Marine and US Army counterparts. More critical, however, is the lack of attack aviation capabilities. Once again, I agree with Lieutenant-Colonel Cessford that we should be seeking this capability. After all, armies of similar size and capability (e.g., the Australian Army) are currently doing so. Indeed, attack aviation is a growing capability throughout the world. The logical conclusion of this

would be that future opponents would likely have attack aviation. Thus, we should be emphasizing air defence capabilities to counter this lethal threat, and again I am forced to ask: are the LIBs the right place to put our manpower, or should 200 regular soldiers, equipped with state-of-the-art tools of the trade, be added to 4 Air Defence Regiment (a move which would largely solve the critical personnel shortages of that unit)?

I must also address the structural limitations of the Canadian army as we are currently configured. Organized into independent brigade groups, it is my view that we will never get beyond our current focus on the contact battle unless we are organized into a divisional structure with the manpower re-allocated to a more balanced capability. I will not propose at this time all the different options, but the bottom line is that brigades fight contact battles. If we want to move beyond this realm into the world of the deep battle, we need the organizational structures and equipment to fight the battle in all three dimensions. Over the last several years, the Artillery School has been teaching deep battle on the Artillery Staff Duties Course. It has been a valiant effort, and has been relatively successful given the limitations of resources. However, the Artillery School does not have any of the automated systems of the divisional headquarters, and, along with the Directorate of Army Doctrine and the divisional headquarters, is one of the few organizations thinking and working on this level.

Lieutenant-Colonel Cessford's suggestions about the Reserves are valid in my view. We must give the Reserves missions that are relevant and contribute to the overall capability of the Army. Thus, instead of just one more light gun battery, perhaps Reserve artillery units could offer a counter weapon radar capability and Reserve infantry units could adopt the LIB mission as their own.

In conclusion, the auditors might balk at the costs of some of the

proposals I have outlined above. I would counter that personnel are our highest costs; a re-focusing of manpower allocations could offset the costs of new equipment like UAVs, rocket artillery, and radar. Furthermore, to counter the oft heard comment that many of the capabilities outlined above would be provided by our allies, I would respond as follows. During the Second

World War, our corvettes sailed with wooden guns and no radar, while the British ships had the real guns and the radar. What makes us think it will be different next time? If full-scale combat comes, our allies will need their kit as much as we need it. As I may have made some enemies in the infantry due to my comments and views, I would like to conclude on the following note:

if the army is given the capabilities outlined above, I promise there will be more of you alive on the last day of the battle when you have accomplished your critical role on the battlefield.



**Commentary on “The Army and Public Affairs from 1990 to 1998,” by Captain Claude Beauregard, in *The ADTB*, Vol. 2, No. 1, February 1999.**

*Colonel Charles Lemieux, the Director of Op ABACUS Strategic Planning (J3 Y2K) and former Director of Land Communications on the Land Staff (January 1997 to August 1998) writes:*

Captain Claude Beauregard, in his article “The Army and Public Affairs from 1990 to 1998,” provides a perspective of Canadian Forces (CF) and army public affairs during this period, but his description is incomplete. As public affairs policy is developed at the national/strategic level, Captain Beauregard could have provided readers with a better understanding of the restrictive communications environment that prevailed in the Department until the current public affairs policy came into effect on 1 March 1998.

Captain Beauregard also chose to publish the unfinished Directorate of Land Communication’s projects, without mention of the directorate’s accomplishments. Unfortunately, Captain Beauregard leaves his readers with a perspective that little progress in Army communications has been achieved in the last two years. As I read the article, I was reminded of Lieutenant-General C.H. Belzile’s standard remark when he read or overheard the comments of cynics, it takes as much effort to be positive (constructive).<sup>2</sup>

On 1 March 1998, the new Department of National Defence (DND) public affairs policy established “a modern, progressive and professional

approach to public affairs (PA) that actively encourages openness and transparency.”<sup>3</sup> This policy framework was missing for most of the period discussed by Captain Beauregard

*A proud, cohesive Army, true to its professional ethics (B-GL-300-000/FP-000), relevant to the country’s needs, trusted by Canadians, reflective of society, and working effectively in our public’s interest at home and abroad.<sup>1</sup>*

(1990 to 1998), when commanders and staff developed public affairs strategies that succeeded to the extent that conditions permitted. It was the Minister of National Defence’s Report to the Prime Minister of March 1997, and the Somali Commission of Inquiry Report of 30 June 1997, that triggered the immediate requirement for transparency of Department and Canadian Forces activities with Canadians.

There is now an obligation for DND and CF to communicate with Canadians. To be successful, discipline needs to be instilled to coordinate public statements and to let subject matter

experts speak. These principles of effective communications are well known, however the challenge is to let every level of command exercise their obligation to speak. A consequence of this new policy is a requirement by the Army to invest time and resources to develop a communications strategy and plan to inform the Army and Canadians of the Army’s vision of the future, its immediate plans, and to report on its activities. The Canadian Forces *Maple Leaf* newspaper and the *Army Doctrine and Training Bulletin* are some of the tools put in place for two-way communications of army issues.

Captain Beauregard correctly states that communications and public relations are leadership functions. Although it would be helpful to have more public affairs officers on army unit establishments, progress in army public affairs is being achieved by commanders taking responsibility for communications. The challenge is one of education and training. It is my belief that commanders and staffs are starting to think in terms of internal and external communications in all that they do within the Army’s communications strategy.

In the 1990s, the Army addressed not only complex domestic missions, but also criticism of its leadership. During domestic humanitarian crisis, the CF (and the Army) was successful in establishing a positive image, as reports indicate of the Oka crisis (1990), the Saguenay Flood (1996), the Manitoba Flood (1997), and the eastern Ontario,

western Quebec and New Brunswick ice storm (1998). Of a different nature, the Bakovici investigations and Board of Inquiry (May 1995 to June 1998) and gender integration (January 1997 to the present) were also complex issues tackled by the Army leadership. The Chief of the Land Staff, with the support of Army public affairs, took charge of these issues and discussed them with the media at press conferences from July 1996 to June 1998. The open discussion of these issues and related incidents was a turning point in army public affairs.

From my experience, I believe the Army is taking the steps to deal with 'the good and the bad' within its overall strategic framework.

For the good of the Army, it is important to communicate and share our perspectives. I am therefore pleased that Captain Beauregard did share his heartfelt views about army communications, which gave me the opportunity to provide my own.



## ENDNOTES

1 One of the Army's six strategic goals is: to improve its identity and image. The description of this strategic goal is quoted within this community. Its objectives and priorities are listed in the *The Land Force Strategic Direction and Guidance Document*, 1998, Part II, Chapter 8.

2 During the period 1982-84, this author was the executive assistant to Lieutenant-General C.H. Belzile, Commander, Force Mobile Command (FMC).

3 *Public Affairs, Defence Administrative Orders and Directives, DAOD 2008-0* 1 March 1998, Policy Direction, p. 3.

### Our readers have submitted for consideration the following opinions:

#### IDENTIFYING THE FUTURE CANADIAN MILITARY: IT IS TIME TO ACT

*Lieutenant-Colonel Steve Appleton  
Chief of Staff of the Combat Training Centre*

At the time of this paper the Department is alleged to be under another structural review with the intent of identifying a force posture that is economically feasible based on present and future costing models. Moreover, the Land Force Strategic Guidance Directive has been issued, which clearly details the Army's vision for force development within the context of the present, tomorrow, and future. Without wishing to sound oversimplistic, and confined to this medium, I believe the answers to this quest are, and have been for some time, readily apparent. As I tend to reason deductively, I believe end-state definition is most important in the pursuit of direction. This form of analysis must work from the formulation of a theory or declaration to the enumeration of specific and substantive conclusions. In addition, the accompanying conclusions must fit within the framework of realistic and achievable conditions as created within the national character.

It is for these reasons I submit that the present interpretation of the

Canadian military scene is not sufficiently focused. It is my opinion that the conclusions which have been drawn from the existing policy statements are too obtuse. As such, they do not permit the type of specificity that is requisite to meaningful force development and identification within the existing and envisaged political and economic context. The inherent ambiguity of the present condition has resulted in a form of paralysis that transcends fiscal reduction; today, the inability of our political and military leadership to advance these issues, in a singular, cooperative, and meaningful manner beyond election goalposts has resulted in military tokenism. While professionally abhorrent, it is a condition not altogether foreign to Canadian military and political history.

The crafting of an appropriate end state for the Canadian Forces, and by extrapolation, the Army, is the crux of this argument. Such an endeavour is easily a paper unto itself, and (as a definitive platform) beyond the scope of this presentation. What is clear is that a number of constituent ingredients

of this proposed approach are readily available within the existing policies and, collectively or in isolation, point to the way ahead.

For the purpose of amplification and simplicity, one can use the 1994 Defence White Paper as a starting point. Despite an absence of supporting national direction, the broadly based theme of the Paper is to maintain multi-purpose, combat capable forces within an international setting, with a response capability that remains flexible, realistic, and affordable. The Paper also recognizes a number of domestic security requirements.<sup>1</sup> It can be reasonably established, therefore, that the national leadership has outlined an end state capability for the Forces, which embraces financial, strategic, and political imperatives.

#### FINANCIAL CONSIDERATIONS

In 1999 one can argue that financial viability may very well be the most influential determinant for the Canadian military. Since the last White Paper, the Department's budget has been reduced by over 20%. This fiscal movement has ushered in a variety of major initiatives championing such themes as the elimination of redundancy, maximizing value, partnership agreements, and cost justification.<sup>2</sup> Based on these tenets, and keeping within the financial context, it is clear that these initiatives have yet to be fully respected. It follows, therefore, that the procurement of

expensive, stand-alone technology-based systems and platforms must be minimized. Moreover, where such systems already exist, they need to be fully integrated into the predominant activities assigned to the military. Where this does not make sense, in terms of either cost or function, the only outcome can be abandonment and replacement of the system. In addition, it inevitably means the amount of money spent on the human resource must be proportional to the desired dividend. To do otherwise would be to subordinate the financial imperative.

Within the military context this analysis results in two observations. The major technology cost-drivers are resident to the air and naval environment. The second major cost driver is the presence of a permanent force. Financial viability means a smaller versus larger regular component supported by a highly selective suite of advanced technologies that achieve maximum value for the political leadership. It also means the financial imperative must be balanced with the need to attract and retain the intellectual, personal, and physical qualities necessary to fully engage all aspects of the military.

#### STRATEGIC CONSIDERATIONS

The predominant strategic issues are well known: increased global dependency, growing disparity between rich and poor nations, continuing economic regionalization, a marked reduction in and polarization of essential natural resources, and international political and economic instability. Economic preservation and enhancement, presented under the guise of national interests, will remain the primary considerations of the nation-state, and as such will largely determine its main threat(s). Ideally, these considerations would require an independent ability to fully monitor and control national boundaries, and offer reasonable security guarantees. As

Canada has decided not to pursue the option of an independent security posture, it means the use of various allegiances and pacts must serve as the alternative. In the hierarchy of needs, therefore, it is necessary to establish which partnership is intrinsic to Canada's survival, and which serve merely as facilitators for Canadian interests abroad. Here the choice is obvious.

In the military sphere of influence, Canada must not only establish its niche within the international community but, more importantly, act as a complement to the American strategic posture and alignment of security forces. On this basis, the roles of surveillance, early warning, and limited protection measures come to the forefront. In addition, the placement of an influential force on a projected basis (most likely into a situation deemed unacceptable or undesirable for American participation in the early stages) would address Canada's need for an international component. With Canada's European ties, bilingual capability, and developing Pacific Rim and Central and South American links, there is no question that the Canadian presence is international.

#### POLITICAL CONSIDERATIONS

For the purpose of this paper I will confine my comments to the domestic dynamic. Standard of quality of living will dominate all national issues. The nation is witnessing an ever-increasing divergence between its rich and poor citizens at the same time that it continues to age, both demographically and in life expectancy. By 2010 it is expected that the number of retired Canadians will increase by 300%, and their term of retirement will average 30 years.<sup>3</sup> Social support costs will double. Under these pressures, the Canadian public, already less tolerant of Canada's international humanitarian efforts, will not tolerate a government that cannot validate and substantiate every funded activity.

Moreover, the increasing ethnicity of the Canadian demographic scene will play an important role in both Canada's foreign and domestic policy formulation. Lastly, Canada's indigenous people will continue to capture political attention.

In military terms the aforementioned trends translates into relevancy at the cheapest price. The Department should not expect to receive significantly more money. If anything, it will be challenged to avoid further reductions. Furthermore, Canadians have come to expect assistance from its armed force during emergency situations at home and, to a lesser extent, when Canadian interests abroad (either humanitarian or economic) are in jeopardy. So they should. Scrutiny, therefore, must be applied to all facets of the military force in order to measure applicability and relative value with regard to these expectations.

#### A CONCEPTUAL MODEL

The creation of a basic framework, derived from the previously presented themes, is now in order. Pursuant to the development of this argument such a general model would serve as the start point for subsequent detailed analysis and discussion.

In concert with the end-state pronouncement of the 1994 White Paper, Canada will maintain a multi-purpose, combat capable force. For primarily geo-strategic reasons, the main thrust of the force will be sea and land based. Ownership of three oceans demands significant resource allocation to not only active patrolling, above and below the water-line, in shipping lanes and coastal waters, but also for the monitoring and protection of immense, untapped natural resources resident to the ocean floor. For political reasons, both domestic and international, a strong land-based component is also essential. Leaving the size of the force aside, it is clear that it must be capable of and willing to conduct domestic and

international operations (including combat), and that it must be sufficiently responsive, equipped, structured, and trained to do so. In order to respect the financial constraint, the apportionment of regular and reserve forces must be the key. A small, robust, conflict-oriented permanent force with finite sustainment criteria, capable of integrating a progressively mobilized militia is completely appropriate within the Canadian context. Our history supports this notion. Since the Boer War, it has been the land contribution that has provided the nation with its greatest dividend. Obviously, equipment and vehicle suites would have to be tailored accordingly.

It is the air element that would witness the greatest change. The two major themes would be airspace surveillance and support for the land component, most notably strategic airlift and aviation support. With the largest and most powerful air fleet in the world as our neighbour, it is no longer affordable to maintain a fighter aircraft capability. This resource meets none of the previously mentioned criteria. The potential for a more value-effective relationship with the Americans in this domain is significant and must be exploited.

This is but one example of the possible courses of action immediately available to the military, based on the postulated end-state from our political leaders. Little of this information is new. Broadly conceived, this process of reasoning exposes the inherent weaknesses in the existing macro-force structure, and clearly establishes that the Canadian public is not achieving maximum value from its present security configuration. More importantly, it brings focus to the problem and offers substantive solutions for change.

### CONCLUSION

Undoubtedly, the number of permutations regarding the composition of the military is vast. Furthermore, the absence of a definitive national strategy complicates the matter. What is clear, though, is the government does not appear ready to return to past Departmental funding levels; in addition, competition for funding will only become more intense and for causes representing far more political risk to the government than security. As such, the military leadership must seize the initiative, and propose a force that is credible, affordable, and, as seen by the political hierarchy, of maximum

value. Simply put, the Canadian military can no longer be all things to all causes. As a consequence, detailed studies regarding the role and size of a particular environment in isolation are meaningless until the larger issue is addressed. Knowingly or otherwise, the keystone direction for this effort has been disseminated some time ago.

We must have the collective courage to act. It is our obligation.



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## ENDNOTES

1 Government of Canada, *1994 Defence White Paper*, pp. 3-38.

2 In particular, the author is referring to such initiatives as Alternate Service Delivery (ASD), Activity Based Costing (ABC), Most Efficient Organization (MEO), revenue retention, etc...

3 Garth Turner, *The Defence*, Toronto: Key Porter Books, 1998, p. 14.

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## FIDDLING WHILE ROME BURNS

*Lieutenant-Colonel L.J. Zaporzan*

*Commanding Officer, 8th Canadian Hussars (Princess Louise's)*

The decision was taken last year to remove the Cougars from service with Regular armoured regiments and to put them exclusively with the Reserve regiments. This itself is disturbing in terms of our "one army" philosophy, but that is not the most serious consequence of this decision. The substitution of the Coyote for the Cougar is one of many short-sighted steps in the continued marginalisation of the Armoured Corps within the army, and it has been accomplished with the only dissent coming from Reserve

armoured units. Before my Infantry brethren smile smugly and say, "I'm OK, Jack," take note that the marginalisation of one of the two "contact arms" means the reduction of the army to a position where peacekeeping and constabulary duties will be the most we can expect in terms of operational capability. Conspiracy theory is the realm of the weak argument, so I do not think that the government is consciously pushing the Army, and ultimately the Canadian Forces, into a constabulary role. However, that is exactly what will soon

be the limit of our capability; and it will take place without forethought or professional debate.

The Coyote is a capable vehicle that is well suited to reconnaissance and other armoured car duties. It is new, reliable, and better armed in terms of an armoured car than the Cougar. The problem with the Coyote's employment in other than reconnaissance tasks is a matter of perception that will lead to the relegation of the Armoured Corps to tertiary tasks and, ultimately, an army capable of support operations only. This state of affairs is disturbing since only a short time ago the Canadian army was capable of the full spectrum of combat operations.



Within the regular armoured regiments there is one “recce” squadron equipped with Coyote, and two “sabre” squadrons. One of these is equipped with the Coyote, and the other is a tank squadron, which will soon have the Leopard C2. The tanks and recce squadron will continue to perform their tasks within the framework of current doctrine. The two “sabre” squadrons are organised and crewed to train and fight in combat teams with the infantry, artillery, and engineers. This organisation provides a general purpose combat capability that is the basis for either war fighting or Operations Other Than War (OOTW). The tank is the main Direct Fire Support Vehicle within this grouping, and in former times the Cougar was primarily employed as a tank trainer capable of combat team training and low intensity operations in cooperation with the other combat arms. It is this cooperation which provides the flexibility to perform any number of tasks across a large spectrum of conflict scenarios.

The use of Coyote as the primary vehicle for one of the sabre squadrons will prove to be disastrous for two reasons. First, there will be some regiments that will use the Coyote squadrons as cavalry squadrons only. This makes sense in terms of making the best use of the equipment, but the problem is that combined arms training will suffer since there will not be enough “tanks” to partner all infantry companies with armour. The tank squadrons can be split, but doctrinally they really should not be divided. Furthermore, when it comes time to replace the tank, it can be easily argued that squadrons of 10 tanks each are workable, therefore the acquisition of only enough Armoured Combat Vehicles (ACVs) to replace the tanks will meet the Army’s needs. In almost 21 years service I have yet to see the Canadian Forces buy more replacement equipment than what was in place at the time of purchase. The trend is always towards less.

The second reason will be one of perception for those Coyote squadrons that might remain as the armoured component of the combat team. The infantry will soon receive the LAV III. It is bigger, better armoured, equally armed, and more mobile than the Coyote. In operations, the big question from the infantry will then be: “Well, what can you contribute to the combat team? A gun that can destroy tanks? No, it’s the same as ours. Cross country mobility that can get fire to where it can be decisive? No, ours is better. Armoured protection that will take some of the heat off of us as we assault the objective? No, same as ours. So what can you contribute then? Hmmm...I think I have a job for you out on the flank somewhere. We’ ll handle the rest ourselves.” In training, Coyote will have difficulty keeping up with the LAV III. With the LAV III being bigger and mounting the same 25 mm gun, it will be difficult for the Coyote crews to be taken seriously. The result will be, at the very least, a portion of a generation of soldiers who may be taught about combat teams, but will not truly believe in combined arms groupings because they will not have seen a viable combat team or trained within a combat team context. In our infantry-based army, this is a dangerous precedent that could lead the questioning of having an Armoured Corps at all. The same could be said of the Cougar in comparison to LAV III, but hopefully the result would have been the will to replace it with ACV sooner rather than later.

This leads me to my last point. As long as we were using the Cougar in the Regular force, we stood a fairly good chance of convincing those in the Department and Treasury Board that ACV is required as a priority capital equipment acquisition. I believe that such a proposition would have been with the support of the infantry, who would have seen the need to bolster a part of the combat team that was lacking. We would also have gained support from the Reserves, who are equipped

with Cougar. The urgency and arguments for an expeditious replacement are now moot until Leopard is scheduled for replacement in 2010-2015. The Coyote squadrons will be forced into armoured car roles, and fewer combat teams will be trained with a concomitant lack of support for ACV, except perhaps from the Reserves.

As the Armoured Corps diminishes in importance, the most frightening aspect of this whole issue is the evolution of our once proud first rate Army into a constabulary force only capable of OOTW operations and aid to the Civil Authority. And, it is all happening quietly, with the support of those of us in uniform because we have not sat back and thought about the long-term consequences of what seemed like a good idea at the time. As a generation of officers becomes comfortable with the idea that the Canadian Army is designed for OOTW and that the “Queen of Battle” can do it all on their own, it will become more and more difficult to persuade anyone that we need tanks or a proper Direct Fire Support Vehicle (DFSV) at all. Certainly, that is what a number of interest groups both within and without the Government want, but I believe that Canada deserves better. Our reputation of being the world’s best peacekeepers and reliable players in the international community is based upon our ability to conduct general purpose operations. If the vision for the future is one of a “niche army,” then so be it. But let’s do it consciously after having considered all the factors and debating the consequences of our actions. Those of us in the Armoured Corps had also better start thinking of where we want to go and how we should be equipped before we find ourselves only capable of support operations, separated from the infantry who will soon be doing the “business of our business” without us.





## WHO KILLED CANADIAN MILITARY HISTORY?

Captain John R. Grodzinski  
Directorate of Army Doctrine

A recent initiative by one Land Force Area has created a professional study programme for Reserve officers within that area, which includes a study and tour of a “Canadian” battlefield in France. A letter outlining the programme states that a European site was chosen since “there are...only limited Canadian battlefields in North America which have been preserved and are available for study.” Really? Why are we so quick to dismiss the military history that occurred here in Canada?

I recently had the pleasure of escorting the officers of the 1<sup>st</sup> Battalion The Royal Canadian Regiment on a tour of some War of 1812 battlefields in the Niagara area, Toronto, and Kingston, Ontario. There was a lot to see and learn. From the northern end of the Niagara Peninsula, one can trace the route General Brock rode from Fort George to Queenston in October 1812. At Queenston the battle in the village is easy to retrace. The probable American embarkation and landing sites are visible from the Canadian shore. The positions of the companies defending the village and the probable location where Brock formed up his forces for a charge on the redan can be located. The significance of the heights is obvious. Moving up the heights to the redan, one of the pivotal events of the battle can be reviewed. Observation is difficult due to the natural growth that now covers what was then a bare hill. However, the importance of the position is apparent, and by simply walking the ground, one quickly gains an appreciation of the physical difficulty—and the tactical error—of the charge up the hill, an action that killed both Brock and his aide-de-camp, Lieutenant-Colonel John Macdonell. The route taken by the natives makes so much more sense. The final actions of the battle are easily studied from the heights themselves. There, a majestic memorial to Brock towers over both sides of the river, a reminder of the battle. On one site, mission command, manoeuvre warfare, the principles of war, and the elements of Canadian tactical doctrine can easily be examined.

But this is not all. A short drive leads to a pristine battlefield near Chippawa, where during a brutal battle in July 1814, an American force defeated the British and Canadians. The plain has changed little from the day of the battle. Modern development has not been so kind to Lundy’s Lane. A visit there is fighting “history in built up areas,” but the hill where the main battle occurred is largely intact—a short walk to a schoolyard puts one in the spot where the Americans formed up for their successful assault against the British guns. Busy intersections mark what were the left and right flanks. Many who fell are buried there. Another short drive takes you to Fort Erie, the scene of the most costly battle of war save New Orleans. In the summer of 1814, the British attempted to retake this fort from the Americans. One can walk this ground today. The same is true for Fort George. Further inland, the battlefield of Stoney Creek is preserved. This important battle occurred in 1813. Even in Toronto—yes Toronto—one can walk the beach where Brigadier General Zebulon Pike’s Brigade landed in April 1813. Their subsequent advance can be followed along Lakeshore Boulevard, through the C.N.E. Grounds to Fort York, a fantastic example of a War of 1812 Fort. But there is more: the battle of the Chateaugay, Fort St Joseph, Thamesville, and many, many more.

Moving away from the War of 1812, the Richelieu River Valley has much history. Three centuries of struggle between the French, British, Americans, and Amerindians occurred there. A new doctrine was born here, *one that influenced European warfare*. The Plains of Abraham are a short trip away. One can also walk the ground the Americans did when they attacked Montréal and Québec during the Revolutionary War. And don’t forget the myriad of defensive structures built in Ontario, Québec, and the Maritimes during the “Cold War” from 1816–1872. These stone structures tell the story of a massive defensive system, and offer

insight into strategic, operational, and tactical planning *in an age of revolutionary technological change*.

In Western Canada, the march of Middleton’s Canadians can easily be followed to Batoche, where in 1885, Riel was defeated. The tracks of the *Zareba* are still there. Try both coasts for defensive works and elaborate defensive plans—NATO’s general defensive plan was not the first time in history this was done.

Canadian officers have had a long interest in these sites. In 1895 a Staff Ride of Canadian Officers toured the Niagara region. They seemed to think this area had something to offer. Until 1993, the brigade in Europe made visits to *Canadian battlefields* easy. In keeping with the grandeur of these visits, many units in Canada chose to avoid our own battlefields and visit places like Gettysburg. But now that we are limited to garrison sites in Canada, why do we not exploit our history? These battles lend themselves to so many areas of discussion: manoeuvre warfare, attrition, the combat functions, the principles of war, ethics, combined and joint operations (particularly cooperation with naval forces), amphibious operations, technological development and innovation, and more.

Let us exploit the richness of our history and not dismiss it through ignorance. Our history has a lot to offer. Certainly the Napoleonic Wars, both world wars and the American Civil War (or War Between the States depending on your flavour) have a lot to offer, but so do our battlefields. Let us not be seduced by a European trip whose covert intent is to lounge at some *Gasthaus* or *café*. As nice as this is, it is increasingly difficult to do, whereas many regular and reserve units are within reasonable distance of several sites here in Canada. Visiting these places will improve our professional knowledge and make us better Canadians as well. Who says there is no military history in Canada? We do. Let’s change that.



## ARTICLES, BOOKS, AND WEBSITES OF INTEREST

### IN THE JOURNALS: ARTICLES OF INTEREST

The following list provides readers with an overview of articles in other professional and general interest journals.

***L'armée d'aujourd'hui***  
numéro 238 mars 1999

"Au service de la sécurité en Europe"

"Macédonie"

"Les actions civilo-militaire"

***Canadian Military History***  
Volume 8, Number 1

"The Fighter Bomber in the Normandy Campaign: The Role of 83 Group" by Christopher Evans

"The Fog of War: Large Scale Smoke Screening Operations of First Canadian Army in Northwest Europe, 1944-1945" by James C. Bond

"24th Canadian Field Ambulance, Royal Canadian Army Medical Corps" by Harold Russell

***The Canadian Forces Journal***

This new professional journal will commence publication in the fall or winter of 1999.

***International Peacekeeping***  
Volume 5, Number 3, Autumn 1998

No new issue received.

***Marine Corps Gazette***  
Volume 83, Number 1, January 1999

"The Next Phase of Precision Targeting" by Lieutenant Colonel Forrest R. Lindsey

"Force Protection in Littorals" by Captain C. Dames

"Next Generation Marine Power" by Lieutenant General Carol A. Mutter

***Military Review***  
Volume LXXVII, July-August 1998

"Civil Affairs Organizations in Haiti" by Colonel Michael A. Quinn, US Army Reserve

"Military Support to Civilian Authorities: The Eastern Ontario Ice Storm" by Joseph Scanlon

"Sealift: Balancing Strategy and Capability" by Lieutenant Colonel Bradley E. Smith, US Army

***Military Technology***  
Volume XXII, Issue 12, December 1998

"The Changing World of Military Trucks"

"Getting Ready for NATO" (An overview of Hungary and the Czech Republic)

***Military Thought: A Russian Journal of Theory and Strategy***  
Volume 7, Number 6, 1998

"The Present and Future of Peace Making Operations" by V. Danilun and A. Usoltev

"Interaction of Reconnaissance and Strike Assets in Combat Operations" by M. Karatuyev

***Orbis: A Journal of World Affairs***  
Volume 43, Number 1, Winter 1999

"An Uninformed Debate on Military Culture" by Don M. Snider

"Does Military Culture Matter?" by Williamson Murray

"Must U.S. Military Culture Reform?" by John Hillen

***Parameters***  
Volume XXIX, Number 1 Spring 1999

"Handfuls of Heroes on Desperate Ventures: When do Special Operations Succeed?" by Colin S. Gray

"Peace Implementation and the Concept of Induced Consent in Peace Operations" by David Jablonsky and James S. McCallum

"SFOR in Bosnia in 1997: A Watershed Year" by John C. Cirufici

"Grunt Diplomacy: In the Beginning There Were Only Soldiers" by Tony Cucolo

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**BOOKS OF INTEREST:  
A LISTING OF RECENT PUBLICATIONS**

**CANADIAN TOPICS**

Andreae, Christopher. *Lines of Country: An Atlas of Railway and Waterway History in Canada*. Erin, Ontario: The Boston Mills Press, 1997.

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**ANCIENT TO EARLY MODERN PERIODS**

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**NINETEENTH CENTURY CONFLICT**

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Woodworth, Steven E. *Six Armies in Tennessee: The Chichamauga and Chattanooga Campaigns*. Lincoln and London: University of Nebraska Press, 1998.

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Lynch, Grayson L. *Decision for Disaster: Betrayal at the Bay of Pigs*. Washington and London: Brassey's, 1998.

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**PEACEKEEPING**

Coulon, Jocelyn. *Soldiers of Diplomacy: The United Nations, Peacekeeping and the New World Order*. Toronto/Buffalo/London: University of Toronto Press, 1998.

Hillen, John. *Blue Helmets: The Strategy of UN Military Operations*. Washington/London: Brassey's, 1998.

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## ON THE INTERNET

This feature appears in every second issue of the Bulletin and offers listing of “cool sites” that our readers may wish to explore. The URLs are current as of publication.

### ALLIED COMMAND EUROPE RAPID REACTION CORPS (ARRC)

The role, organization, and operations of ARRC are covered on this site. Included are overviews of assigned formations and biographies of senior commanders.

[www.rrcmedia.com/](http://www.rrcmedia.com/)

### CANADIAN LAND FORCE COMMAND AND STAFF COLLEGE

This site offers course schedules, contact details, information on the Kingston area, and other details regarding the Staff Course, Command and Staff Course, Militia Command and

Staff Course, Military Training Assistance Programme, and the Commanding Officer's Course.

[www.army.dnd.ca/clfcsc](http://www.army.dnd.ca/clfcsc)

### THE FRENCH ARMY MUSEUM

A great site offering detailed information on the history of the French Army and the collection at the French Army Museum (*Invalides*). Available in French and English (First World War only).

[www.invalides.org/](http://www.invalides.org/)

### THE FRENCH ARMY

A detailed site on the current organization, role, and activities of the French Army. Available in French, English, and Spanish.

[www.defense.gouv.fr/terre/index.htm/](http://www.defense.gouv.fr/terre/index.htm/)

### NATO 19 MEMBER COUNTRIES

NATO has expanded to 19 countries. This page provides an overview of member states and links to the government, military, and other pages of each member country.

[www.nato.int/family/countries.htm](http://www.nato.int/family/countries.htm)

### OSPREY PUBLISHING

A great site to find and order titles from the military series published by Osprey, such as *Men at Arms*, *Order of Battle*, *Vanguard*, *Elite Forces*, and other titles.

[www.osprey-publishing.co.uk/](http://www.osprey-publishing.co.uk/)

### UNITED STATES ARMY DOCTRINE AND TRAINING COMMAND (TRADOC)

A site examining all aspects of US Army force development, doctrine, and recruiting. Of particular interest is a link to the “Army After Next” site.

[www-tradoc.army.mil/](http://www-tradoc.army.mil/)

